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aaactgaaaa tactagatgt ttcatatgga acagggacag gcaatactgc actcgtatat 540  
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<212> DNA  
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gcctcgtgta cttcgacggc cacct 325

<210> 1271  
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<212> DNA  
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ctttatccaa gaggggctac aaatgtttgc tgtgcattat gtaacacaat aacctctgtt 300  
ccttctcctg catatgtagg tgcagatatg gccagctta tatgtggagg ttgcaggaca 360  
ctgct 365

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gaggaacatc cctgttggcg ctggccgtcg taagagcaag aattcgtatg cagccacggt 180  
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gaaaaccgcc ggaaccacca tcctgagggt cggttcagat tctcctaatt ggggtcaatc 300  
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 ttctg 365

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 tcgatagagg aactgcaaca gatagaacag cagctagaac ggagtgttat cagcattcgt 180  
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 ttgacagctg agaatgcaat cttaactgag aagtgtggaa tcaagccccc acaaagagca 300  
 aatgagtgcg gggatagtcc acttctca 328

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<400> 1274  
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 cgccaacact cagatgaaga tgatgctgag acagtggcag atccaagcga acagagcaga 180  
 taccctactg atcccaagcg aattagaagg atggtttcca atagggagtc tgctagaaaa 240  
 tcacgtaaaa ggaaacaagc acacttagcc gaacttgaaa tacaggctga ccgacttaga 300  
 ggagaaaagtt ctactttggt taagcaacta ttagatgctg cacagcacta ccgccatgct 360  
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<400> 1275  
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 tccctggact gctgaggaag acaagttact cattgagtat gtgaagttgc atggggaagg 240  
 aagatggaac tctgtagcta ggctcacagg gctcaagagg aatgggaaga gctgtagatt 300  
 gaggtgggtg aattacttga ggctgacct gaagagaggt cagataacct ctcaagaaga 360  
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 <212> DNA  
 <213> Eucalyptus grandis

<400> 1276  
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 cggatggagg gagtgcgctt cctgtggcaa gcgcctgcat tgcggatgca ttgcttcgag 180  
 gatgctgctg gagctgctcg attgtggcgg gatcaactgc gcgacctgtg cgaaaagtgc 240  
 aggacttctg cctatcgcaa gtgatgagag gcctagttag tttggcatga ttaatgttcg 300  
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382

<210> 1277  
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<212> DNA  
<213> Eucalyptus grandis

<400> 1277  
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ccctcac 367

<210> 1278  
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<212> DNA  
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<400> 1278  
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cgccgacgag acccctcccg tcaccgacct ccccgctcgc ggccatctcc ctgattgctt 300  
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ctggtttgat ggagaaggca tggg 384

<210> 1279  
<211> 368  
<212> DNA  
<213> Eucalyptus grandis

<400> 1279  
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gccgagatcc ggctacccaa gaaccgcacc cgctcttggc tcggcacctt cgacacggcc 180  
gaggaggccg cctcgccta cgacaaggcg gcgtaccggc tgccgggtga tttcgcgcgg 240  
ctcaacttcc cgcacctcaa gcacaagggg tcgcacatcc agggcgactt cggcgactac 300  
aagccgctcc attcctccgt ggacgccaag ctccaggcca tctgccagga catggccgag 360  
aaaccagc 368

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<212> DNA  
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<400> 1280  
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cacaacgggc cggctctcgt ggaccgcttc aacgagtcgc tgcactacta ctccaccttg 180  
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accctcgcgc agtggcgggt ccgcctcggc ggcgcggggt t 341



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<400> 1281  
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aggggtcatt gactctgtcg cggactatta gtcaaaaaac agttgatgaa gtgtggagag 240  
aattattcaa agagacggag gatgtgaaag aaggaggtag agaaggaggt gacat 295

<210> 1282  
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<212> DNA  
<213> Eucalyptus grandis

<400> 1282  
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gtgaactcga ccgaaaccgc atacttggcn ttcacatcgt ccaaccgttt tttnagggcc 360  
tcgat 365

<210> 1283  
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<212> DNA  
<213> Eucalyptus grandis

<400> 1283  
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gccaaacgcc ctccgcgcct ctccgcgcgc tgctgtatc tctgctgcgt ccgtggactc 180  
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gcgccggacc ccccggtaca cgggggtggc ggtctccttg aacacgacc gcccgggccg 420  
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<400> 1284  
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cggagaagaa gaagggcaac ccgtggaccg aggaggagca caggttattt ttgctcgggc 480  
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 <212> DNA  
 <213> Eucalyptus grandis

<400> 1285  
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 cgcgcccgcg gccgcgcgcga tccgggtccc cgactccgtc tacaacgcgc tcagggtggg 180  
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 ggcatcttgc ggtacttcca tggagttcct gaactcgtgc ctctgcctcg ccagaggcat 300  
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<400> 1286  
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<400> 1287  
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 <212> DNA  
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<400> 1289  
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 aaaaccagac ccccgatca gccccgaaag aaggctcgac aagcaagatg gcggaagagc 180  
 accggtgcca ggccccgcgc ctctgcgcga acaactgcgg cttcttcggc agccccgcga 240  
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 acgccaagct cgctttcaac cagacctgt 330

<210> 1291  
 <211> 296  
 <212> DNA  
 <213> Eucalyptus grandis

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 aaagggccct ggtcttctga ggaagacaag aagctccttg attttatcca gcagcacggc 180  
 catggagctg gatctctctc cctaaacgtg caggtcttaa tagatgtggc aagagctgca 240  
 gattgagatg gataaactac ttgtggccgg acatcaagag agggagtttc tccccg 296

<210> 1292  
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 <212> DNA  
 <213> Eucalyptus grandis

<400> 1292  
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<210> 1293  
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 <212> DNA  
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<400> 1293  
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 ccgagccgtc gggctccgtt ggcggcgacg acgacaagca ctaccggggc gtgcgcccgc 180  
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557

<211> 500

<212> DNA

<213> Eucalyptus grandis

<400> 1298

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catgaattga	gctgcaatgg	aaacaaggcc	cactcctgcg	tgttccacc	aacttatcct	180
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<211> 483

<212> DNA

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ccgctttggg	tgtcgggcgg	ggaccgcctc	gccgactgcg	gctgcgagag	ggcgaagcag	300
gcgcgggattt	tcgggctcaa	caccatggtc	tgcgctcc			337

<210> 1332  
 <211> 325  
 <212> DNA  
 <213> Eucalyptus grandis

<400> 1332						
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cttaatcaga	ggttttacgc	cctcagggcc	gtggttccaa	atgtatcaaa	gatggataag	120
gcttcactgc	tccaagatgc	ggagtcttat	atcagggagc	ttaacatgaa	cctacaagct	180
gcagagtctg	ataaggagga	tttgaagaan	cagttggatg	aactaaagaa	gcgatcatcg	240
gataaagaat	gtatcccggg	ggatcaagat	cgcaagatgg	caaaacctac	gggaagtagg	300
tccactgggg	tggcaatcga	tgtga				325

<210> 1333  
 <211> 362  
 <212> DNA  
 <213> Eucalyptus grandis

<400> 1333						
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tccttgggca	cccttctttg	tagctgggtg	agcagggggg	gctacaacgg	atgcttggga	180
gagtgatatg	cgcgctctcat	cagatgagaa	accgggaata	cgaatgttgt	ggttgcgttc	240
aagggtgtagt	tgcaggtcgc	gcacttccaa	agtgtcccca	ccgcgatgct	tagccaagcg	300
acacgcaaag	ttggtgacgg	aatcgatgaa	ttcatcagca	atagaaagca	ggagatcttc	360
ca						362

<210> 1334  
 <211> 216  
 <212> DNA  
 <213> Eucalyptus grandis

<400> 1334						
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cctttattac	agtgtgcatg	acaccaacac	aggttttcag	gtcactgtgg	ttggttatag	120
tcacaagcta	aggatattgc	tggaaaaagt	catcgagaaa	attgcaacct	ttgaagttag	180
acctgagaga	tttgttgtga	tcaaggaagt	ggtgac			216

<210> 1335  
 <211> 326

<212> DNA

<213> Eucalyptus grandis

<400> 1335

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ggatcccgtt	gcaattgatg	ctcctggggg	atttcttttt	gagtgggtgt	cagtcttttg	180
ggatatattt	attgcaagga	ctaacgagaa	acattctgaa	gctgctgcag	catatatattga	240
ggcacaacaa	ggtaaagcaa	gagagcagca	gcagcagcag	cagcagcagc	agcagcaaca	300
gcaactgcag	atgcaacaat	tgcatac				326

<210> 1336

<211> 382

<212> DNA

<213> Eucalyptus grandis

<400> 1336

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agggaaagtga	agtgatctcg	gatcagctga	ctttggagaa	tgatcctaaa	gctgggtattt	180
ctacattgag	atcatcttta	agagcgtgt	ggttctctga	tggcatctca	tccatcaaat	240
cattcgtgtg	ggcgccctca	tcaaggtgcg	tttgctgatg	ctttatacaa	agagctgtgg	300
catgcctgtg	ctgggcctct	tgtcaccctt	cctcgagagg	gagagcgtgt	ctattatttt	360
ccacaaggtc	acatggagca	gc				382

<210> 1337

<211> 322

<212> DNA

<213> Eucalyptus grandis

<400> 1337

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agatcagctg	aatcgggaga	tcagaataat	ggagtctcac	gatgagacag	gatgccaggc	180
cccaaaaggc	ccaatcctct	gcattaacaa	ctgtggcttc	ttcggaagtg	ctgccaccgc	240
caatatgtgc	tcaaagtgcc	acaaggacgt	gatattgaaa	caagaacagg	cacaagcagc	300
tgcctcctcg	attgagagca	tt				322

<210> 1338

<211> 536

<212> DNA

<213> Eucalyptus grandis

<400> 1338

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cagagcttca	tggtcccatg	ggctgtgacg	atgagtctct	ttttgaaaat	acaggcaccg	180
gggattctac	atacagagtt	aaagctgtta	agcacacaac	tgtttattca	agttctcctc	240
ctgaaggacc	aattaaagca	attgtctttt	ctcagtggac	gagtatgtta	aacttggttg	300
aacaaaatct	gatccatttt	ggcataaatt	atagacggct	tgatggaaca	atgacccttt	360
ctgcaagaga	caaagctgtg	aaagatttta	acaccgatcc	tgagatagtc	gttatgctaa	420
tgtcattaaa	agcaggaaac	cttgggtctaa	acatgggtgc	tgcttgctcat	gttattcttt	480
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<210> 1339

<211> 438

<212> DNA

<213> Eucalyptus grandis

<400> 1339

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gtgggctccg	agcgccggcg	agaggcgcaa	gtacgagggtg	gcgagggtgc	tgtagggca	180
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gatcgtgtcc	ggcgggatgg	acactctcgt	gatggcttgg	gatttgagga	atggagaggc	300
gcagacgttg	aagggccatc	agttgcagg	caccggcatc	gtgttgagc	gcggcgacat	360
ttgtttctgc	ctcttggtga	ttgtacctta	ataagatgga	agaatggcca	gcttacggag	420
cactgggagg	ctcatata					438

<210> 1340

<211> 533

<212> DNA

<213> Eucalyptus grandis

<400> 1340

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ccgagccctg	ggccaagcgc	aagcgtcca	agcgcccca	caaccgccc	tccgaggacg	180
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cgccgcctcc	ccccgcggtc	tcttcgagg	cgccaagggt	ggcctacagg	tgccccgtct	300
gcgacaagg	cttccccctc	taccaggccc	tggcgggcca	caaggccagc	caccgcaagc	360
acgcctcctc	cgccctcgcc	gccgcggggg	gtgacgacca	gccgaccacc	tcgagcacct	420
ccgcgggcgc	gacctcctcc	ggcgtctccg	ggaagggtcca	cgagtgtctg	atctgccaca	480
agagcttccc	accggccagg	cgctcggcgg	gcacaagcgg	tgccactacg	agg	533

<210> 1341

<211> 363

<212> DNA

<213> Eucalyptus grandis

<400> 1341

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tcccggtggga	cgcaagccc	tcctcttata	cccagcaggt	tcacatttct	ttagctggag	180
atggacatat	gcgcatttca	tgggtcactg	atggtaaate	ttccccctca	tacgtggaat	240
acggaacatc	gcccgggtcg	tatgactcta	cagctcaagg	agagagcact	tcttatagtt	300
atctatttta	tagctctgga	aagatacacc	acacgggtgat	cgggccattg	gagagcaaca	360
ctg						363

<210> 1342

<211> 316

<212> DNA

<213> Eucalyptus grandis

<400> 1342

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aaccaaccac	ctgaacctcc	cgccggggag	atgtggatgg	ccaatcattg	gcgagagcct	120
ggagtctctc	cgttcccagc	ttgaaggag	cccgagagag	ttcatcaagg	accggatgac	180
caagtacaac	tcctctgtgt	tcaagacctc	ggtgctcggg	gagccgatgg	tcctcctgtg	240
tgggcccggc	gggaacaagt	tcctgtttct	aaacgagggc	aagaagggtg	tgctgtgggtg	300
gccgagctcg	gtccat					316

<210> 1343

<211> 322





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197

<210> 1348  
<211> 315  
<212> DNA  
<213> Eucalyptus grandis

<400> 1348  
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ttggaccgaa gtttcgattt ttagcaggcg agatcagctg aatcgggtgt ccttttgag 120  
gtgatcagaa taatggagtc tcacgatgag acaggatgcc agggcccaaa agggccaatc 180  
ctctgcatta acaactgtgg cttcttcgga agtgctgccg ccgccaatat gtgctcaaag 240  
tgccacaagg acgtgatatt gaaacaagaa caggcacaag cagctgcctc ctcgattgag 300  
agcattgtca acaga 315

<210> 1349  
<211> 329  
<212> DNA  
<213> Eucalyptus grandis

<400> 1349  
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gcctccacca gcggcggcgg cggggaggag tcgccgcggc ggttcgcgcc ggccggctcag 120  
ccggagataa tgagggccgc cgagaaggac gaccagtacg cctccttcct ctacgacgcc 180  
tgccgcgacg ccatccgccg cctcttcggc accagagtcg ccgtggcgta tcaaagcgag 240  
acgcagcttc tcgggcaaat gctgtactat gtgctgacga ctgggttcggg gcagcagacg 300  
ttgggggaag agtactgcga catcactca 329

<210> 1350  
<211> 313  
<212> DNA  
<213> Eucalyptus grandis

<400> 1350  
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aatcgggaata atggagtctc acgatgagac aggatgccag gcccacaaaag gcccaatcct 180  
ctgcattaac aactgtggct tcttcggaag tgctgccact gccaatatgt gctcaaagtg 240  
ccacaaggac atgatattga aacaagaaca ggcacaagca gctgcctcct cgattgagag 300  
cattgtcaac aga 313

<210> 1351  
<211> 305  
<212> DNA  
<213> Eucalyptus grandis

<400> 1351  
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tgacgcgaac agcgtcggcg acaacgcggt catcgcggat cacgacgcaa ttgactcggc 180  
cggcgacgac gacnacnacn aagacaagcc caagaccggc cagaagcaag gccgccgcaa 240  
aataaagatc gagttttatac aggacaaatc gagacgccat atcaccttct ccaaaaggaa 300  
agctg 305

<210> 1352  
<211> 517  
<212> DNA

<213> Eucalyptus grandis

<400> 1352

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gcaaaggccc	ctccctccgt	ccctccctcc	gccgccatga	tgcagcagcc	ggcccccgga	120
gccgtccccg	accagcagca	gcagtaccag	cagcagcagc	agcagcagtg	gatgatgatg	180
cagcaggccg	cccagcccgt	gccccgcgcg	gtgggctgga	ccccgcagcc	ggccccgcgcg	240
cccatggcgg	cccagtcgat	ggccggcgcc	gcggcgccgcg	agatcaagtc	gctctggatc	300
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gaggttctct	cagctaaggt	gattagaaat	aagcagactg	ctctgcccga	gggttacggg	420
ttcattgaat	ttatgacccg	tgcagcagca	gagaggattt	tgcagacgta	caatggcaca	480
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<210> 1353

<211> 472

<212> DNA

<213> Eucalyptus grandis

<400> 1353

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atgggtgaaag	aaacttagac	agaaagttag	gacattacat	catactcctg	aagagcatca	120
aaggcccgag	taacagaaaa	aggccgatac	ggcaacatcc	aaacaaatta	aaagccaaat	180
tgtgacccca	acgtaccat	ccatatacaa	tgccataact	aatcattca	ccttccgaca	240
tctactctct	ttctacttga	atgggtgacgt	gacttatctt	gtactctctt	ctaagttagt	300
ccacaacctt	gtccaggacc	atctcgccat	tgccgtcacg	ctttattttg	acatggcagg	360
ctaatagtac	ctttccaacc	gttatagccc	agatgtgcaa	ttcatggact	gcaatcactt	420
catcgatctt	gcaaagtcca	ctctcgagcc	tagtggcatc	aatctctcta	gg	472

<210> 1354

<211> 472

<212> DNA

<213> Eucalyptus grandis

<400> 1354

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ctatcgcagg	gcctgcgata	cagacgcttg	gctgccaagc	atgaagagaa	gccctccgct	120
gtgctcgaca	aatcccaaga	tcccacagac	agcgcaaagc	catccaagaa	gccccgcat	180
cgtcacagtc	ccaccagct	cgctgccctc	aacgaactct	ttgagaaaag	cgaacacccc	240
actcttgagg	agcgaggcca	gttggtgag	aaattaggaa	tggagaccaa	gaccgtcaat	300
gcatgggttc	agaacaagcg	tgcttctact	aagaagcgca	ataagggggg	aacctcgga	360
cctcaccag	ccacgagtca	gaacgacttg	tccgaagatg	ctctcaaaac	cccttccgca	420
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<210> 1355

<211> 503

<212> DNA

<213> Eucalyptus grandis

<400> 1355

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ttggcagaag	gcagggcgtc	ggcgactcag	gacatattgt	cgcacatgct	gttggccacg	120
gacgaagatg	ggaagcacat	gaacgagatg	gacattgctg	acaagatctt	gggcttggtg	180
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cttccccaaag	tctacgaggg	agtctacaag	gagcaaatgg	agatcgccaa	gtcaaaagcc	300
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tgtgaggtgc	tgcgattggc	gcctccgctc	cagggagcat	tcagagaagc	cctcaatgac	420
ttcatcttca	atgggttctc	cattccctaaa	ggctggaaga	tctattggag	taccactcgc	480

actcacagga gccagagta ctt

503

<210> 1356

<211> 360

<212> DNA

<213> Eucalyptus grandis

<400> 1356

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aagaaggctg	ttcataagac	caccacgaca	gatgataaaa	ggcttcaaag	caccctgaag	180
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gttatccagt	ttttgaatcc	caaagttcaa	gcgtctattg	ctgcaaatac	ctgggtagtt	300
agtggttctc	ctcagaccaa	gaagctacag	gatatcctcc	ctggcatcat	caaccaatta	360

<210> 1357

<211> 377

<212> DNA

<213> Eucalyptus grandis

<400> 1357

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gccgttgatt	attatgtctt	attctgactt	gctgaacctg	ctggttgccg	tgggcgtttg	120
gtgcaccgcg	tatattgcgg	ctgccgttct	cgagtcgctc	cgggtcttcc	atactctctg	180
ttcgttttga	tttcgatagc	tgttttcgaa	ggctaagatg	ggctacgcac	agctggatcat	240
cggccctgcc	ggcagtgagg	agtcgactta	ttgctcgagt	ttgtatcaac	attgtgaagc	300
tattgggcgg	acaatacaca	ttgttaacct	agatcctgca	gcaaagaact	ttgactatcc	360
tgtggccatg	gatatca					377

<210> 1358

<211> 360

<212> DNA

<213> Eucalyptus grandis

<400> 1358

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tgctcctgat	ggacatatta	cagagattat	ctacaaagga	actcatgac	accctaaacc	180
acaaccaagc	cgccgcttta	ctggaggagc	gaccatgcc	atccaagaag	aaagatctga	240
taggttttca	tttataacct	cagtggagag	cacatcgacc	gtatatggcg	agacatctta	300
taatgttgag	actgatggta	ctcctgaact	atctcctggt	gctgagaatg	acgaaactat	360

<210> 1359

<211> 347

<212> DNA

<213> Eucalyptus grandis

<400> 1359

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ccatgccgcc	gtcgatcccg	ccgcgcccc	tctcgccgtc	gatctccagc	tgatcgcgcc	180
tccgattttg	ctccccgccc	cggcgcgatg	gtggctctgca	aatgccgcaa	ggctacgaag	240
ttatactgct	tctgtcacaa	ggtcctctgt	tgtggagaat	gcatatgctt	tacggagcac	300
caaatatgcg	tggttcgtac	ttactcagaa	tgggttatag	atggcgca		347

<210> 1360

<211> 326

<212> DNA  
<213> Eucalyptus grandis

<400> 1360  
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cgccagcgtg gggcgcctgt ccgccgcca ctaccactcc tcgtcctccg ccgcggcatc 180  
cccgaacccc ggctcgtccc cgatcgacgg gagcgacggc tacctgtccg acgatcccgc 240  
gcccggctcc cgctcgtcca atcggcgcgt cgagaggaag aaaggatcgc aggattttga 300  
ttgacgcgcg gctccctgat tccctg 326

<210> 1361  
<211> 526  
<212> DNA  
<213> Eucalyptus grandis

<400> 1361  
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ctccggattt tcgtccctt ttgggggtcc tcgatttgat gataagccat ggatgcctgg 120  
ggctcgtgcta gtgtgctgcg cgcgctcctg tggctcgcct tgcctggggg tggccgcacg 180  
gcgtcggcga gcgtcgtcct gatcggcagc aacgtcaccc tctccttcgc cgcgctcgag 240  
gctgaattcg ctccgccgat taagggttct ggggtttgcg gcgtgctgta tcttgccgac 300  
ccgatcgatg cgtgctctca attggtgaat gaggccaacc ggttgccgaa tgctagctcc 360  
cctttcgcgc taattgttag gggaggagga tgtagtttcg aagagaaagt taggagagct 420  
caaaaggctg gattcaaagc ggctattgtc tatgacaacg aagctgatgg caacttggtg 480  
ccaatggctg gacattcagc tgggataaag atccatgctg tgttcg 526

<210> 1362  
<211> 307  
<212> DNA  
<213> Eucalyptus grandis

<400> 1362  
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gaaatactcg tatgtttcaa tggacaccga gttcctggag tgggtggcgcg gcccataggc 180  
aacttcaaaa cgtcctcgga ctaccactac cagacgatgc gctgtaacgt cgaccttctc 240  
aagatcatcc aagtcgggat cacgctggca gacgaggagg ggttggtccc gcaggactgc 300  
tctacgt 307

<210> 1363  
<211> 353  
<212> DNA  
<213> Eucalyptus grandis

<400> 1363  
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ctcgaaagag gtgttgggaa gctgggaagt ttcattgtta ctgacaattc cagctggaat 180  
aggagtaaaa gtttcaggat agggcttaag gtggcctcag gttattgtgg gaacacacga 240  
atccgagaag caaaaacata agccttcact gtgagggagc atagaggaga atcatataag 300  
aaacattatc cacctgcacc tgacgattaa atctggagggt tggagaagat cgc 353

<210> 1364  
<211> 324  
<212> DNA  
<213> Eucalyptus grandis

<400> 1364  
cctcgccccg caaaaccgat tgcgaggtcga gagtcgagta aagatgaatg tggagaagct 60  
tatgaagatg gcgggttcag tccgcactgg tggaaagggg accatgagaa gaaagaagaa 120  
ggctgtgcac aagacaacta ccacggatga caaaaggctc caaagcactc tcaaaagaat 180  
tgggggttaat gctattcctg caattgagga agtcaacatt ttcaaggatg atgttgtcat 240  
ccaatttgta aatcccaaag ttcaagcctc tattgcagcc aatacatggg ttgtcagtgg 300  
tgctcctcag accaagaaat tgca 324

<210> 1365  
<211> 306  
<212> DNA  
<213> Eucalyptus grandis

<400> 1365  
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atgcgg 306

<210> 1366  
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<212> DNA  
<213> Eucalyptus grandis

<400> 1366  
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agaaatctga agagagggga ctgaaattag gttattgaga aggattcttc ccgtgaccaa 180  
tcttttggag aaagatggct tctcaattta atttcaaagg cataaccgat gcatcgcaag 240  
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<210> 1367  
<211> 292  
<212> DNA  
<213> Eucalyptus grandis

<400> 1367  
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gccgtagagt ccattgatgc aactaaaaag gggagccttg ctaggttcat aaatcattca 120  
tgccagccaa attgtgagac aaggaaatgg aatgtattgg gggagataag agttggcata 180  
tttgccaagc atgacattcc tgctggatct gaattgtcat atgattataa cttcgagtgg 240  
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<210> 1368  
<211> 278  
<212> DNA  
<213> Eucalyptus grandis

<400> 1368  
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gatgtacgag ttcaaggatga ggaagtgcgc gcgcgggagg tcgcacgact ggacagagtg 180  
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cggcactgca tgtcctgatt tccgcaaagg cgcgtgca 278

<210> 1369  
<211> 328  
<212> DNA  
<213> Eucalyptus grandis

<400> 1369  
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aagaagaaag gagttccatg gacagaggag gaacacagaa ctttcttggg ggggcttgag 180  
aagcttggga aggggtgatt gagaggcatc tctaggagct atgtgaccac aagaacaccg 240  
gcccaggttg caagtcatgc tcagaaatat ttctcctggc aagtgaagctt caacaagaaa 300  
aagcggcgct cgagcctctt tgacatgg 328

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<212> DNA  
<213> Eucalyptus grandis

<400> 1370  
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<210> 1371  
<211> 320  
<212> DNA  
<213> Eucalyptus grandis

<400> 1371  
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gcgccgggaa ttcggccgtg gtttcgattt tgcgagcga gatcagcaga atcaggagat 180  
caggacaatg gagtctcaca atgagacagg atgccagcct ccaaaaggcc caatcctctg 240  
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caaggatgtg atgctgaagc 320

<210> 1372  
<211> 343  
<212> DNA  
<213> Eucalyptus grandis

<400> 1372  
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agaaatctga agagagggga ctgaaattag gttattgaga aggattcttc ccgtgaccaa 180  
tcttttgag aaagatggct tctcaattta atttcaaagg cataaccgat gcatcgcaag 240  
ctgaaggagt agctgggaaa tcacacggaa atcactcttt aactcggcag ccatcaatat 300  
atgctttgac ttttgatgag tttcaaaaca catgggggtgg gct 343

<210> 1373  
<211> 310  
<212> DNA  
<213> Eucalyptus grandis

<400> 1373  
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accctcccc	cgccgcctcc	ccccgcggtc	tcttccgagg	cgccaaggt	ggcctacagg	180
tgccccgtct	gcgacaagg	cttccccctc	taccaggccc	tgggcggcca	caaggccagc	240
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<210> 1374  
 <211> 306  
 <212> DNA  
 <213> Eucalyptus grandis

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caattgcttg	atgctcctct	cccgtgttgg	cgagagcacc	gactcggcgt	cgccggaccg	180
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cctctt						306

<210> 1375  
 <211> 273  
 <212> DNA  
 <213> Eucalyptus grandis

<400> 1375						
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tgctcgcccg	cggcggcgcc	ggccggaccc	taccccgcc	gcctcccccc	gtggtctctt	180
ccgaggcggg	caatgtggcc	tacaggtgcc	ccgactgcga	caagggtctc	ccctcctacc	240
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<210> 1376  
 <211> 319  
 <212> DNA  
 <213> Eucalyptus grandis

<400> 1376						
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tgacaagata	cttccttgcc	ctcgatgtaa	tagcatggac	accaaattct	gttactacaa	180
caactataat	gtgaaccagc	cccagacactt	ctgcaagaac	tgccagagat	actggacagc	240
tggtggaacc	atgaggaatg	ttcctgtggg	tgctggccgc	cgcaagaaca	agaactcggc	300
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<210> 1377  
 <211> 339  
 <212> DNA  
 <213> Eucalyptus grandis

<400> 1377						
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gccttggggc	cgctacgccc	ccgagatccg	ggaccccgcc	aagaagaccc	gggtgtggct	240
cggcaccttc	gacacagccc	aggaggccgc	ccgcgcctac	gacaccgccc	cccgcgagtt	300
ccgcggcgcc	aaggccaaga	ccaacttccc	cacctccgc			339

[illegible]

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<400> 1379						
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acaaggacgt	gatattgaaa	caagaacagg	cacaagcagc	tgctctctcg	attgagagca	300
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<400> 1380							
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caacgagctg	gacactgcag	ggacagaact	cgagtgtttc	ccagctctgc	agaagcaaga		360
caag							362

<400> 1381						
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acagcatcag	ttgatggaag	agatatctcg	tctctcctca	ccatcatcct	gctttagtag	420
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<211> 319  
 <212> DNA  
 <213> Eucalyptus grandis

<400> 1382  
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 cgatctgaag gaacagaagg tgacagtcaa gggcaatctg cagcccgatg ctgtcctgca 240  
 aaccgtctca aagtccggaa aacaaactgc tttctgggaa gcggaagccc cagcccaacc 300  
 cgaagtgaag cccaccgaa 319

<210> 1383  
 <211> 408  
 <212> DNA  
 <213> Eucalyptus grandis

<400> 1383  
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 aatttaggga tatttatatg catgcaatgt tcaggaatcc atagaagtct tggggtacac 360  
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<210> 1384  
 <211> 315  
 <212> DNA  
 <213> Eucalyptus grandis

<400> 1384  
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 ggctgtgtcg tcacatcagg tccagagtcc tctgtgaagc ttgatgttgt tgtccttgaa 240  
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 gtgaaagaac gtgaa 315

<210> 1385  
 <211> 375  
 <212> DNA  
 <213> Eucalyptus grandis

<400> 1385  
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 cgcggcgtcc ctctc 375

<210> 1386  
 <211> 332  
 <212> DNA  
 <213> Eucalyptus grandis

<400> 1386  
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 cgggtgcgcgc gcggcaagtc ccacgactgg ac 332

<210> 1387  
 <211> 320  
 <212> DNA  
 <213> Eucalyptus grandis

<400> 1387  
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 ccttccaaag ttgggtcaca attggaagct gtggataatc tgaaagagtt gcaggtcctg 180  
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 tggacggacg aagagcatga gaggttcctt gaagctttga aactgtatgg ccgcggttgg 300  
 cgtcagatag aagagcatgt 320

<210> 1388  
 <211> 409  
 <212> DNA  
 <213> Eucalyptus grandis

<400> 1388  
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 tcggacgacg gcgctatcca ggtgttccat tccagagtgt ataacgacct gatgacggat 360  
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<210> 1389  
 <211> 313  
 <212> DNA  
 <213> Eucalyptus grandis

<400> 1389  
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<210> 1390  
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 <212> DNA  
 <213> Eucalyptus grandis

<400> 1390  
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<210> 1391  
 <211> 156  
 <212> DNA  
 <213> Eucalyptus grandis

<400> 1391						
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<210> 1392  
 <211> 555  
 <212> DNA  
 <213> Eucalyptus grandis

<400> 1392						
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<210> 1393  
 <211> 525  
 <212> DNA  
 <213> Eucalyptus grandis

<400> 1393						
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<210> 1394  
 <211> 443  
 <212> DNA  
 <213> Eucalyptus grandis

<400> 1394						
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ccaggtcggg	ggtcgtcgat	gtcgtggacg	atgacttcga	ggccgacttc	cagggcttca	180

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<210> 1395  
 <211> 409  
 <212> DNA  
 <213> Eucalyptus grandis

<400> 1395						
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<210> 1396  
 <211> 462  
 <212> DNA  
 <213> Eucalyptus grandis

<400> 1396						
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ccgagatcag	agaccccggg	acgaagaagc	tcgtgcggct	cggcactttc	ggctcgccgg	420
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<210> 1397  
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 <212> DNA  
 <213> Eucalyptus grandis

<400> 1397						
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ccccctttgt	ataaccagcg	aaaccatccc	cacgacggcg	cctctgggct	caaccggttc	180
ctcaccaggg	agcactgggg	cgacctccct	ctccagctca	acgactccga	tgacatgctc	240
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accgcccgtc	accccgagcc	ccagccccac	ccccctctcc	ccgcccgttc	cgccccacc	360
tccttcgcct	ccgacgagcc	ctgtcgctcc	acaacgcttt	cgctct		407

<210> 1398  
 <211> 456  
 <212> DNA  
 <213> Eucalyptus grandis

<400> 1398						
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catttcaatg	gaagtatgct	caatgatact	aactcatctg	gtgaaagtca	cacacgtaat	180
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ataacagatc	aagagctaca	acaaatctca	ggagactcga	actctgtaat	cactcctctg	300
tttgagaaaa	tggtgagtgc	tagtgatgca	ggtaaaattg	gacgtttagt	gctgccaaga	360
aaatgtgccg	aggcctatct	tccgtctatt	tctcagcttg	aaggattgcc	actcaaagtt	420
caggatgcc	aaggctcgga	gtggatattt	caatta			456

<210> 1399  
 <211> 474  
 <212> DNA  
 <213> Eucalyptus grandis

<400> 1399						
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ccatgggctt	ccagaggcga	acccgagcgt	tgatgaacca	gtagacacc	tggtcctcgg	300
ttagtccgc	ttgttttgcg	agcatgtgtt	tgtccgaatc	tttgggatag	ctgcaattgc	360
aacacgccag	aatggtgaat	gtacaattgc	aactcaaaca	taaagcgtgg	tcgtcaacca	420
tgaacatggt	ttaaattact	cctatgatct	acagttgatc	gaacttacct	ttgg	474

<210> 1400  
 <211> 443  
 <212> DNA  
 <213> Eucalyptus grandis

<400> 1400						
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cctaccagct	gcgcgtcacg	cgctccggcg	acctcgagac	cgtagggcgc	tacgacttcg	240
ccggccagct	cgactctccg	atgatcgccc	acccgaagat	cgacccggct	tcgggcgaga	300
tgtagccctt	cagctacgac	gtcgtccgga	agccgtacct	caagtacttc	cgattctcca	360
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<210> 1401  
 <211> 481  
 <212> DNA  
 <213> Eucalyptus grandis

<400> 1401						
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tcgtaggcct	tcgctgcctc	caccgcgctg	tcgaacgtcc	ccagccacac	gcgcgtcccc	420
ttgcgcgtcg	ggtcgcgtat	ctccgcgcg	aacttcccc	acggccgcgg	gcgcacgccc	480
c						481

<210> 1402  
 <211> 384  
 <212> DNA  
 <213> Eucalyptus grandis

<400> 1402  
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gggcccagag gttggggaat tgcgggtgcc gatagggcc ggagggcgca gatcttcggg 180  
ttgcagacca tcgcgtgcgt cctgttttg aacggtgtgg tcgaactggg ttccaccgag 240  
ccgatctacc agagctccga tctgattagc ggaattaggg ggctgttcaa tttccatgaa 300  
tcggagatgg gatgcggtgg tagggttttg aatagcgagc atgacccggc gtcgctttgg 360  
atctgcgatc cgccagtcac gatg 384

<210> 1403  
<211> 380  
<212> DNA  
<213> Eucalyptus grandis

<400> 1403  
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gaaaaaccca caagcacgcc atggacaaca atgttgagga ataccagaac tattgggaga 120  
cgaccatgtt ctaccaaagt gaagagctcg acagttgggt ggacgaggcg atatccgggt 180  
actacgactc gagctccctt gacggggcgg cgtcgaccgc tgcttccaag aacatcgtgt 240  
cggagaggaa ccgaaggaag aagctcaacg agaggctatt cgcattgagg gcggtggtgc 300  
ccaacattag caagatggat aaggcatcca tcatcaagga tgcgattgac tacatccaag 360  
agttgcacga tcaagagaga 380

<210> 1404  
<211> 432  
<212> DNA  
<213> Eucalyptus grandis

<400> 1404  
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cccagatcgt caaaatcgaa tcttgactcg agggagaagc ggagaatgac gaagcgcagc 120  
gcagccaagg ccgcggcggg gcacgagggc gaggagcgca ggagcgagct gaagttcaga 180  
ggggtgcgga agaggaagtg gggcaggtgg gtctccgaga tccgcctgcc caacagccgg 240  
gagaggatct ggctcggctc ctacgacacc cccgagaagg cggcccgcgc cttcgacgcc 300  
gccgccttct gcctcggccg ccccgccgcg aagctcaact tccccggcag cccccggag 360  
atctccggct cggcgtccct ctccccgat gagatccagt cggccgcggc gagctacgcc 420  
aacttcgggg cc 432

<210> 1405  
<211> 345  
<212> DNA  
<213> Eucalyptus grandis

<400> 1405  
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gagaccgcat cctccgcgcg cgcggcgatg gccccagctt cattccctgc gctagcaacg 120  
catttcaatg gaagtatgct caatgatact aactcatctg gtgaaagtca cacacgtaat 180  
ggaaggccac gagagatgc caggggaagg aatcaattac ttcctcgtaa ctggcccagg 240  
ataacagatc aagagctaca acaaattctc ggagactcga actctgtaat cactcctctg 300  
tttgagaaaa tgttgagtgc tagtgatgca ggtaaaattg gacgt 345

<210> 1406  
<211> 471  
<212> DNA  
<213> Eucalyptus grandis



<400> 1410  
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gggaggcgca ctaccggggg gtgaggaaga ggccgtgggg gcggtacgcg gcggagatca 180  
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cccgcgcta cgactccgcc gcccgcgact gcccgggctc caaggccaag accaacttcc 300  
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<210> 1411  
<211> 586  
<212> DNA  
<213> *Eucalyptus grandis*

<400> 1411  
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cttgcataca gtccatgcag ttgcaagcag gagacatagt gacatt 586

<210> 1412  
<211> 427  
<212> DNA  
<213> *Eucalyptus grandis*

<400> 1412  
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cgggtgccac gaccaccatt cgcagatctc caagggcaag cgcacgaagc gccagcggcc 180  
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aggagggcac cgtgccagcc acaagaagcc caagtccacg gccgatcctg accagaaaat 360  
caagccgtcg acgggtgtcc tgggcttgga cgcaattgac gacgaagacg aggggcactc 420  
cggtaaa 427

<210> 1413  
<211> 375  
<212> DNA  
<213> *Eucalyptus grandis*

<400> 1413  
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gcagatctga tagagaacct gcatgttagt cagcaattct gagctcgtag gttcttcgca 180  
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gaggtaaagca ccaagacgct gaatcggtgc gcccataacc gacaccattt gctccagcat 300  
atccattaga gctgctgcac tagaagtatc ggcacagag attgcccttg ccaggcgatt 360  
accacttggt tcaag 375

<210> 1414  
<211> 369  
<212> DNA



<213> Eucalyptus grandis

<400> 1414

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tcaagacttg	acggcagaag	agcttgaaga	tatgctatct	aataataatc	cagcaccttc	120
taagaaagct	aaggctccta	aacaagagaa	tatggaagca	ctggaggggc	tggatactct	180
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agccacaaca	aagcaccctc	gacaccgacc	aggggtgttc	tgtattgttt	gtatacaacc	300
ccccagtggg	aagggcccaa	aacacaagcc	aacatgcaca	tgtaatgtct	gtctgaccgt	360
aaagcgcgt						369

<210> 1415

<211> 313

<212> DNA

<213> Eucalyptus grandis

<400> 1415

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ggagccgcag	tgccgcgggg	gttcccaggg	gcgcactggg	tcggagtcag	gttccgccag	180
tcggatcacc	atccaatcgg	atcgggcaag	ggctcaccga	tattggaggg	ttcacagccc	240
atgaagaaga	tcaggaaagg	gccgaggtcg	cggagctccc	agtatagagg	ggtcactttt	300
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<210> 1416

<211> 489

<212> DNA

<213> Eucalyptus grandis

<400> 1416

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actgtcccgt	cgcgcggaatt	caccccgccg	tcgtaggaga	ccgcatacta	cgccgcgcgc	180
gcgatggcgg	cgccacgagg	agatgccagg	ggaaggaatc	aattacttcc	tcgttactgg	240
cccaggataa	cagatcaaga	gctacaacaa	atctctggag	actcaaactc	tgtaatcact	300
cctctgtttg	agaaaatgtt	gagtgctagt	gatgcaggta	aaattggacg	tttagtgctg	360
ccaagaaaat	gtgccgaggc	ctattttccg	cctatttccc	agcctgaagg	attgccgctc	420
aaagtccagg	atgccaaagg	ctcggagtg	atattttcaat	ttcgattctg	gccaataat	480
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<210> 1417

<211> 372

<212> DNA

<213> Eucalyptus grandis

<400> 1417

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cgctcgtccg	aagccgtacc	tcaagtactt	ccgattctcc	aaggacggcg	agaagtcccc	360
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<210> 1418

<211> 354

<212> DNA

<213> Eucalyptus grandis

<400> 1418

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aaatctcctg	gttctagatt	tgaggatgcc	tcaaataatg	gggcaagcca	gaatgtacag	180
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ataagaagga	agtcgtggat	ctgaggaacc	ttctgtgttc	ttgtgcacaa	gcagttgccg	300
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<210> 1419

<211> 540

<212> DNA

<213> Eucalyptus grandis

<400> 1419

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atgagtacgg	ctttttgccg	ctgtgtgtcg	ccatgtgttt	cttcaaattg	cccttcaatg	180
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tcgtcgcaga	ttcaggagat	ccagcaggat	tggagataac	tggctcatcc	acaggcaaca	480
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<210> 1420

<211> 349

<212> DNA

<213> Eucalyptus grandis

<400> 1420

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gaacaagaga	gaaagaaagg	ggttccttgg	accgaggaag	agcacaagct	ctttttgatg	120
gggtctaaaa	aatatgggaa	aggtgattgg	agaaacatct	ccaggaactt	cgtgatcacg	180
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ggaaaagata	agagaagggc	cagcatccac	gatatcacia	ctgtgaatct	cacagagact	300
agaactcctt	caccagatga	taaaaggccg	ccttcgccag	atccttcat		349

<210> 1421

<211> 378

<212> DNA

<213> Eucalyptus grandis

<400> 1421

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gcgtactgct	caacttcgag	gacgtcggcg	ggaagggtgtg	gcggttccgg	tattcgtact	360
ggaacagcag	ccagagct					378

<210> 1422

<211> 358

<212> DNA

<213> Eucalyptus grandis



<400> 1426  
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gaggcatcgt catctgtgat tgtgcatgca gtagatgatg gattggacaa gaagtttgaa 180  
tatgtttctc atgaatcggc agaaaattcc agctccagga gcgatcaaga agcaaataga 240  
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cggaagaaga aatatgtaca acaactagaa tcaagccgct tgaagctagc acagttggag 360  
ctggaactcg ggagagctag gcagcaaggg ttgctcttgg gaaatggatt cgac 414

<210> 1427  
<211> 332  
<212> DNA  
<213> Eucalyptus grandis

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ggggctctcc acctcgctgt cgcccgacac gatgaacccg gtcgggaact ccggcagcgc 180  
gggcacgttc aggtcgaagt tgccggcgcc gctgtcgtat ccgagcgcgg gcggggccgc 240  
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gtagtggcaa cgcttgtgcc cgccagggc ct 332

<210> 1428  
<211> 318  
<212> DNA  
<213> Eucalyptus grandis

<400> 1428  
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cggccaggtt ccattggccga tccggctcgg ctggccaagg ttccgcagcc cgagcctgga 180  
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tgaggaacgt gccagtcg 318

<210> 1429  
<211> 349  
<212> DNA  
<213> Eucalyptus grandis

<400> 1429  
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tgctgactgt cgagatgttt ccccgagaaa cttcaaagag agtgggtgag gttcattctc 240  
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tactgggatt ggcttttagca cacggtgatg agatgtctcc accaccctt 349

<210> 1430  
<211> 350  
<212> DNA  
<213> Eucalyptus grandis

<400> 1430  
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ccaagcctcc caagtctctc cgaccatggc tccccgggag aggcccaacg ccgtcaccgt 120



<211> 557  
 <212> DNA  
 <213> Eucalyptus grandis

<400> 1435

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tccccagaga	ccgccgtgga	tgctacaaga	gaagaaagac	ttcggataca	cagataagga	180
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<210> 1436  
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<400> 1436

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gctcggcggg	cacaagcggg	gccactacga	ggcccccgcc	cccatacccc	cctccttctc	360
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<210> 1437  
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<400> 1437

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gtcgcgcgca	tcccaaacc	taacggcgct	aaggaaatcc	gtttccgggg	cgtccggaag	180
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<210> 1438  
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 <212> DNA  
 <213> Eucalyptus grandis

<400> 1438

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tcaaggacct	ccatgaacaa	ggatgaaaaa	ctggctaatt	cctggaaaac	tcttggcaga	180
cccgtttgaa	gattgttcaa	ggtacttgct	ctcgctactt	ccactgcctt	ggaatgtttc	240
agcattttctt	cttctaccct	cctttggcag	gttgcaagtt	caagtttctt	ctcggccagt	300
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<210> 1439  
 <211> 269  
 <212> DNA  
 <213> Eucalyptus grandis

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 agctgctgca attctccaag gcgaatccga tggttcaagg aggttcgaat caagcacgcg 180  
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 tccgagaccc caaccggaag ggctcgcgc 269

<210> 1440  
 <211> 351  
 <212> DNA  
 <213> Eucalyptus grandis

<400> 1440  
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 cgtttgaata ctgctgggtg tttggctgtt catattcagc aagtgcacaa actcgaaccg 180  
 gaaaaccttc cacgtataga aaatgcacta ccaggaagag atggctacga agttgaaatc 240  
 tttggtatgg tgggaatccc agcacctgat gtcgccgact acaaacgacg caaggaaatc 300  
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<210> 1441  
 <211> 476  
 <212> DNA  
 <213> Eucalyptus grandis

<400> 1441  
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 tcaaagatca cctattcttt ccggttgggt tgcggtgact aagaactctt tctctctctc 180  
 gctctgagtc actcttgctt tctcccgact tttctgggat tgatgaaaat ggcggaaga 240  
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 tctctgtact caccgcaccc gcgcgcgcgg gccggctcgc ccgcgcgggt ccgcgacccg 360  
 ttgagatcct ccaagcggag caagcaccgc gtgtaccgcg gggtcggat gaggaactgg 420  
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<210> 1442  
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 <212> DNA  
 <213> Eucalyptus grandis

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 aactattacc gtttttgcag atgatgttgt tgagagttca gaggtaacat ntggaataac 180  
 cagaattgga gactatgagc ttcacgacct tgtgctgctg gataatacca acttcgggtg 240  
 cataattcgt gttgaaagtg aagcttttca ggtaggtgac atgcactgag gcaagtctct 300  
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<210> 1443  
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 <212> DNA  
 <213> Eucalyptus grandis

<400> 1443  
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cgacctgcat attctggacc tagagacgat gaggtggatg tctcctgagg taaaaggcga 180  
gattcctgtc cctagggaca gtcacagcgc tgttgccatg gaaaacaaat tagtgggtgta 240  
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gacctgggtca aagttgactg ttcaaggatt ttcacccg 338

<210> 1444  
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<212> DNA  
<213> *Eucalyptus grandis*

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ggcctatgca ggagactctc acgctcctcg agatcaggtc cgaggctcga ctctagggtt 180  
aaggaggcca accaaaaggg tcctcttttg gacgaacttc cggattatgt cgaagaaca 240  
tgggtatcaa cggagcggca agaaatgcag ggaaaaattc gagaacttgt acaagtatta 300  
caagaagacg aatgaacgaa aagcgggtag gcaagacggt tagcactaca ggttctttcg 360  
tcaagctcga agctctctac ggagagaacg ccaatttgaa ttccatcct 409

<210> 1445  
<211> 304  
<212> DNA  
<213> *Eucalyptus grandis*

<400> 1445  
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gggattagtc tgggtgggtgc ttcaagggtc gtgttactag atgttgtgtg gaatccgtca 180  
gttgacaggt aggcataaag ccgtgctaca gacttggaca gaagaatgcg gtctatatatt 240  
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acac 304

<210> 1446  
<211> 332  
<212> DNA  
<213> *Eucalyptus grandis*

<400> 1446  
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gatccgcgac ccaggcaaga agaccgcgt ctggctcggc accttcgaca ccgcccaggga 180  
ggccgcccgc gcctacgaca cggcgggcgg tgagtccgcg ggcgccaagg ccaagaccaa 240  
cttccccacc gccgacgagc tcgtcgtcgc cgtcgccgcc gccgcccga gccccagcca 300  
gagcagcacc gtcgacaacg cctccccctc gc 332

<210> 1447  
<211> 349  
<212> DNA  
<213> *Eucalyptus grandis*

<400> 1447  
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atcggccctg	ccggcagtg	caagtcgact	tattgctcga	gtttgtatca	acattgtgaa	300
gctattgggc	ggacaatata	cattgttaac	ctagatcctg	cagcagaga		349

<210> 1448  
 <211> 362  
 <212> DNA  
 <213> Eucalyptus grandis

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ccccgtcaag	aaggcacgcg	tctggctcgg	caccttcgcc	tccgccgagg	agggcgccgc	360
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<210> 1449  
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 <212> DNA  
 <213> Eucalyptus grandis

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atggtgaaga	gagacagaga	ggcgcgagg	tcgaagccct	ggccgngggc	aactgcttga	120
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<210> 1450  
 <211> 389  
 <212> DNA  
 <213> Eucalyptus grandis

<400> 1450						
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aactgggact	ggcagcagga	tccatttcac	agcctcctgc	caagcgtcag	aaaatggatc	360
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<210> 1451  
 <211> 381  
 <212> DNA  
 <213> Eucalyptus grandis

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381

<210> 1452

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<212> DNA

<213> Eucalyptus grandis

<400> 1452

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aaagttcaag	cctctattgc	agccaataca	tgggttgctca	gtggtgctcc	tcagaccaag	360
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<210> 1453

<211> 378

<212> DNA

<213> Eucalyptus grandis

<400> 1453

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<210> 1454

<211> 339

<212> DNA

<213> Eucalyptus grandis

<400> 1454

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<210> 1455

<211> 372

<212> DNA

<213> Eucalyptus grandis

<400> 1455

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cacagcatgc	atcttggggg	tctggccact	gcatctcatg	ccattgcaac	tggaactctc	120
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<210> 1456  
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 <213> Eucalyptus grandis

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<210> 1457  
 <211> 352  
 <212> DNA  
 <213> Eucalyptus grandis

<400> 1457  
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<210> 1458  
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 <212> DNA  
 <213> Eucalyptus grandis

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 gcaa 364

<210> 1459  
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 <212> DNA  
 <213> Eucalyptus grandis

<400> 1459  
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 tcgacgagca acagcaggaa acagaagtaa atgatgcctt gcagcagctg ccacctgatg 180  
 ttgatgaaga atgtgaatct atggactcca ccaactcaaa tact 224

<210> 1460  
 <211> 363  
 <212> DNA  
 <213> Eucalyptus grandis



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<210> 1465

<211> 334

<212> DNA

<213> Eucalyptus grandis

<400> 1465

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<210> 1466

<211> 371

<212> DNA

<213> Eucalyptus grandis

<400> 1466

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<210> 1467

<211> 456

<212> DNA

<213> Eucalyptus grandis

<400> 1467

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<210> 1468

<211> 417

<212> DNA

<213> Eucalyptus grandis

<400> 1468

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tcaccatgta	cggccatctt	ttcaatctgt	ggtttatgag	aatcagccac	gcttggccag	360
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<210> 1469

<211> 460

<212> DNA

<213> Eucalyptus grandis

<400> 1469

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agccgcggca	agctccatga	attctgtagc	ggcccaaggt	atcgcgtatt	tgtatgttat	180
cacttgtttt	tctcgtaaat	gttatgatga	gacatcaggg	ggagaaacct	agaactgaga	240
tcacactggt	tcattaaatt	ctctcgcca	aattctttcg	ggaaaccctc	agatcttggt	300
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ggtttcagtt	tcttgactct	ttttgcgac	tttccgttca	ccatgaaaaa	aagctttcag	420
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<210> 1470

<211> 408

<212> DNA

<213> Eucalyptus grandis

<400> 1470

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tccaattcat	ccgacggcgg	cggcgccggc	ggcgccgaac	gggatgagaa	gctggctcgc	180
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aaagagctgg	agatgaagag	caaatatatg	gaaggggaat	gccgcaggct	ggggcggttg	360
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<210> 1471

<211> 530

<212> DNA

<213> Eucalyptus grandis

<400> 1471

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gcatgtcgcg	ctccctttca	gttcacaaat	gcagacagaa	atgcttagaa	gataactgtc	180
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gtagcaagtc	actaggggac	atgcaggttt	attttaaaat	gttgataaca	cttttgcccg	360
aagagcaaat	gccagatgag	tattctggca	agaccaggt	tattctctgc	aatgactgcg	420
agaagagagg	aagcacatct	tttcattggg	tttatcacia	gtgccgtcat	tgcggttcat	480
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<210> 1472

<211> 381

<212> DNA

<213> Eucalyptus grandis

<400> 1472

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accagcaaga	gtccaaagaa	g				381

<210> 1473  
 <211> 567  
 <212> DNA  
 <213> Eucalyptus grandis

<400> 1473						
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cgtaacaagg	cgctcctctc	agctctccaa	cgctgtcttt	ccttcattgc	caggtgtaga	240
caccacttcc	cattgcctca	aacttagatc	tttcatagt	tggctacaga	agaagatggt	300
gataatacaa	attagaagta	atttctcaca	tcacaatata	atacacgaca	ttttagctga	360
gttaactggt	ctgagaaaag	aaaagaatcc	caaggaggag	acaggtttat	ccaaggaaat	420
gcccggcttn	catggcttct	gcggtccata	cgggatggcc	atcgacggtg	gtcatagcgg	480
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<210> 1474  
 <211> 423  
 <212> DNA  
 <213> Eucalyptus grandis

<400> 1474						
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ctctctctct	ctctcgacca	tggcccgacc	gcagcagcga	tatcgcgggc	tgccgacag	180
gcattggggc	tcttgggtct	ccgaaattcg	ccaccctgta	ttgaaaacaa	gaatttggct	240
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gca						423

<210> 1475  
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 <212> DNA  
 <213> Eucalyptus grandis

<400> 1475						
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agccgtacag	gggtatccgg	atgaggaagt	ggggtaagt	ggtggctgag	atcaggagc	180
ccaacaagcg	ctcccgtatc	tggctcggct	cctacgccac	cgccgtggct	gccgcccgn	240
cctacgacac	cgctgtgttc	tacctcgtg	gcccctctgc	ccgectcaac	ttccccgacc	300
tcattcttga	cgagggccag	gactcgctgg	gtgaggtctc	agccgcctcc	atccgcaggc	360
gtgcagctga	ggtcggggcc	caagtttgat	gcttgtccaa	gc		402

<210> 1476  
 <211> 269  
 <212> DNA  
 <213> Eucalyptus grandis

<400> 1476  
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tgcgacgcca aggtctccat catcatgatc tccagcaccg gcaagctcca cgagtacatc 180  
aagctcctcc acctcaacga agaagatgta cgatcagtat cagcaggcgc tcgagggtga 240  
tctctggagc tctcactatg agaagatgc 269

<210> 1477  
<211> 297  
<212> DNA  
<213> Eucalyptus grandis

<400> 1477  
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tggagctcca tctgtgaagt gtgcgatctg tcaatttatt actaacgttg gtgcggggcaa 180  
tccaaggggt tctgttccac caciaaagaat cgatggacca ccgtcaggga caacaccgtc 240  
tacttcaacg tcaatgcccc aatctactca aactgtagtg gttgaaaacc ccatgtc 297

<210> 1478  
<211> 408  
<212> DNA  
<213> Eucalyptus grandis

<400> 1478  
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gattcagaac aacattgtgc agcaagtccg gggccttgtg aaccgagcaa acaagggtga 180  
atctacttct gaattgcacg ggcaggcaac tcgtgacctc gaatcagctg tttcttcatg 240  
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ctgggttcaa ctgactctcc ttcctgttga caatgataac aatgggaccc aggaacactc 360  
tgatgcctat gccttctgcg atgagtggaa gcttgcacta aacatgtc 408

<210> 1479  
<211> 317  
<212> DNA  
<213> Eucalyptus grandis

<400> 1479  
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cacgaactat tggcaatcga tctcatggct tcctcgagcg gaacgtcttc cgggtcaacc 180  
ttgatccaga actcgggatc agaggagagt ctgcaggcct tgatggatca gaggaagagg 240  
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ctggacgatc tgatgct 317

<210> 1480  
<211> 411  
<212> DNA  
<213> Eucalyptus grandis

<400> 1480  
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gaaacgggtga accccaaaac accctctatt gaggaagaat ctgctaaaac gaaagcttct 120  
ggcatcgatc aagaacaggg cgattcgctg aactcgcagg agaagcccc cctgaagaag 180  
ccggacaaga tcataccttg cccgcgatgc aacagcatgg acaccaagtt ctgctactac 240



aacaactaca	acgtcaatca	gccccggcac	ttctgcaagg	cctgccaaag	atactggacg	300
gccggcggtg	ccatgcggaa	cgttcccgtg	ggagctgggc	gccgcaagag	caagagctca	360
gcttcgcatt	atcgccagat	cactctctct	gangctcttc	aagcaagctc	g	411

<210> 1481  
 <211> 401  
 <212> DNA  
 <213> Eucalyptus grandis

<400> 1481						
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gtgagcattt	tgcaacctgg	tgtagtgcc	cctgaagcct	ggttacagaa	tgaaagagaa	180
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aagcaggctg	agactgaaga	acttgccaaa	aagggtgatt	ctctgagtgc	cgagaatagg	300
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gccacattga	tggaagact	ggaaaatgca	cagggagtgg	a		401

<210> 1482  
 <211> 438  
 <212> DNA  
 <213> Eucalyptus grandis

<400> 1482						
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cagctgtgag	catcagattg	gaagtgtaaa	agttggggct	gattcttttg	gagtcacctt	240
ctggggggat	ggtagatcca	tagccatttg	ctgcttttgt	ttttcttgct	aattccgctt	300
tctttcttga	agttggaact	ccaatatctg	tatgcgtctg	tctagatgga	ctggcgcttt	360
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<210> 1483  
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 <212> DNA  
 <213> Eucalyptus grandis

<400> 1483						
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aacaaggaga	gacaggacat	tattacacag	attattaagc	ggaatccagc	gtttaagccc	180
ccggctgatt	ataggcctcc	caagctacag	aagaagctgt	acataccgat	gaaagagtac	240
cccggttaca	attttatttg	acttataata	ggacctaggg	gcaataccca	naaaaggatg	300
gaacgtgaaa	ctgggtgcaa	gatcgtcatt	cgnggaaaag	gttcagtga	agagggtagg	360
ttgcagcaga						370

<210> 1484  
 <211> 335  
 <212> DNA  
 <213> Eucalyptus grandis

<400> 1484						
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ggctcgaggt	cggatcagga	gagaaggaag	gggattgctt	ggaccgagga	agaacacagg	120
tggggtcttc	ttcttgctca	tcgggtattt	cttctaggcc	tagataaata	tgggaaaggc	180
gattggcgaa	gtatttcccg	gaactttgtc	gncacaagga	cgcctacgca	agttgcgagc	240



<210> 1489  
 <211> 411  
 <212> DNA  
 <213> Eucalyptus grandis

<400> 1489

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caaatcgcg	ctcggttgcc	gggacggact	gacaacgaaa	taaagaactt	ttggaactca	180
accataaaga	agaggctcaa	gaactcgtca	tcattcttct	gtagacactc	gccaaacacg	240
agcgattcct	ccttgtcatc	agacgttaaa	gatgtcatgg	gaggtctcat	ctcccttcag	300
gaacaaggac	tcattgccact	ttatatggac	tcgttgctgt	ccgtgcaagc	tttggtctct	360
aaccagggtta	tcgatccatt	actacctca	ctcaacccaa	ggcctcgacc	t	411

<210> 1490  
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 <212> DNA  
 <213> Eucalyptus grandis

<400> 1490

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ctgttgtaga	gtacaagcca	gagtctacga	aagaagatga	taagggtgga	gacaccctaa	300
aagatgaaat	cgcagagctg	cagatgagac	aactaaggct	actgggcaag	gacttgaatg	360
gcctgagcat	aaaggaattg	cagcaccttg	aacagc			396

<210> 1491  
 <211> 188  
 <212> DNA  
 <213> Eucalyptus grandis

<400> 1491

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catcgaaggt	ttttaattgg	tctccagaaa	ttgggtaaag	gagactggcg	agggatagct	120
cgtgactttg	tgactacaag	gactcctact	caagtggcaa	gccatgcca	gaagtattat	180
atccggca						188

<210> 1492  
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 <212> DNA  
 <213> Eucalyptus grandis

<400> 1492

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gacccaattt	ccctcctccg	tccctcctca	cttcacagtg	ggactatttt	tggaacctct	180
tttcatccct	ggactactat	ggatacccca	ctcggagtag	tattgatcat	atggctatgg	240
atgatgagac	cagaggattg	aggcaggctc	gagaggaaga	ggggattcca	gacttggaag	300
aagaaactga	gcacgaagaa	tgtgatcacc	actcgtatgt	tgatgaagat	agaggcaaca	360
gagatgctaa	tttccccact	gaggaagttt	tagtggaaga	tgttgatgac	aggaagagga	420
tgaggatgaa	ggaacagaca	cagctgtgaa	tctgaggatg	a		461

<210> 1493  
 <211> 445

<212> DNA

<213> *Eucalyptus grandis*

<400> 1493

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cacccgagaa	catgagccaa	tccaagggcc	cacctgggtcc	aaaggggtggc	aggggttcgcc	180
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cttctgcctc	tgggtgatggc	tctcaaagat	tggcgcatata	ctttgccaat	gggctggaag	360
cacgccttgc	aggcagtgcc	ggtgatagac	aaaccttttt	ctattcttcc	gaattgcaga	420
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<210> 1494

<211> 419

<212> DNA

<213> *Eucalyptus grandis*

<400> 1494

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atatgtctgt	aattcaatgg	gattccccaa	gcagaacttc	aatccaggaa	taccactt	419

<210> 1495

<211> 388

<212> DNA

<213> *Eucalyptus grandis*

<400> 1495

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ttttggataa	gctattagca	tgggagaaaa	agctctacga	agaagtgaag	caagggtgagc	120
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tagttgacat	gcagtccatg	gattcaactg	cttcagaaat	aaaccacata	agggacaaac	300
agctgtaccc	aaagcttgcg	caacttgtcg	atgggatggc	gaatatgtgg	gaaaaaatgc	360
gcatgcatca	tgataagcag	gagtctat				388

<210> 1496

<211> 417

<212> DNA

<213> *Eucalyptus grandis*

<400> 1496

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ggatctcatc	ctcatcaact	acatagcgaa	tcacggcgaa	ggcagttgga	actccctagc	180
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gcatgccaaag	tggggaaaaca	ggtgagatgc	acataagtca	cacaactttt	cgttacatag	360
gttctacaac	ataataccca	tcgatcatat	tgaacaagg	tccccgtggn	atcacga	417

<210> 1497

<211> 404

<212> DNA

<213> Eucalyptus grandis

<400> 1497

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ctcccgggaa	gaacagacaa	tgagatcaag	aatcactgga	acactcacat	caagaagaag	300
ctcaagaaga	tgggcattga	tctctcact	cacaagccat	tagtcaccaa	caacgacaa	360
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<210> 1498

<211> 340

<212> DNA

<213> Eucalyptus grandis

<400> 1498

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aaacacaatc	atgatgttcc	caactgcaaaa	tctagcagcc	atgacactgc	agctccctcc	180
gctctaagtg	gactgccaag	aacaagatca	gaagggtgaa	cagtgcgcct	agatcttggt	240
gtgggaagaa	gtgcggcatc	agaaatggcg	tcagctgaga	agcagcagat	cctccggcca	300
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<210> 1499

<211> 311

<212> DNA

<213> Eucalyptus grandis

<400> 1499

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gaggaagacc	agatcctgat	ctcccacatc	caccagtttg	gtcactcaaa	ctggcgtgca	120
cttcctagac	aagcaggtct	gttaagatgt	gggaagagtt	gcagactccg	gtggataaac	180
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<210> 1500

<211> 324

<212> DNA

<213> Eucalyptus grandis

<400> 1500

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<210> 1501

<211> 380

<212> DNA

<213> Eucalyptus grandis

<400> 1501

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 <212> DNA  
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<210> 1503  
 <211> 312  
 <212> DNA  
 <213> Eucalyptus grandis

<400> 1503						
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aagaactact	ggaataccca	tttgaagaag	aagctgaaga	agcttcaagg	ccaagcaaat	240
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<210> 1504  
 <211> 468  
 <212> DNA  
 <213> Eucalyptus grandis

<400> 1504						
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cagagggcaa	caccagcatg	aaatgcctca	agccaaaagg	acttcaaaaag	atggtaacaa	420
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<210> 1505  
 <211> 415  
 <212> DNA  
 <213> Eucalyptus grandis

<400> 1505						
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<210> 1506  
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 <212> DNA  
 <213> Eucalyptus grandis

<400> 1506						
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<210> 1507  
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 <212> DNA  
 <213> Eucalyptus grandis

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<210> 1508  
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 <212> DNA  
 <213> Eucalyptus grandis

<400> 1508						
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tggtgtctgt	ttccggtgac	ccgatccaac	gattatcagc	atacatgttg	gaagggtca	300
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<210> 1509  
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 <212> DNA  
 <213> Eucalyptus grandis

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gaaaggaaac	ccgtatccca	gctactatag	atgcaccagt	gtcaagtgca	atgtgcggaa	180
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<210> 1510  
 <211> 441  
 <212> DNA  
 <213> Eucalyptus grandis

<400> 1510						
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ctctccacgc	ggccactgtc	ccgtcgcgcg	aattcacccc	gccgtcgtag	gagaccgcat	180
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<210> 1511  
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 <212> DNA  
 <213> Eucalyptus grandis

<400> 1511						
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<210> 1512  
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 <212> DNA  
 <213> Eucalyptus grandis

<400> 1512						
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atgctctccg	gcaacaagaa	gctccacgag	tacatcagcc	ccaccaccac	gacaaaaagg	180
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<210> 1513  
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 <212> DNA  
 <213> Eucalyptus grandis

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ggggtacctt	gatgatttcg	tggttgacaa	agatgggtcaa	tggatgctcc	aaggatggaa	180
aggtcggatt	ctttatgctt	cctcctgttg	ggaacctgtg	tagaatttct	ccaagtcttt	240
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323

<210> 1514  
<211> 285  
<212> DNA  
<213> Eucalyptus grandis

<400> 1514  
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ctctgtttga gaaaatgttg agtgctagtg atgcaggtaa aattggacgt ttagtgctgc 180  
caagaaaatg tgccgaggcc tattttccgt ctattttctca gcttgaagga ttgccactca 240  
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<210> 1515  
<211> 290  
<212> DNA  
<213> Eucalyptus grandis

<400> 1515  
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tcaagatgct cttgagctga aaatgacatg ggaagaactc caggatttgc ttcggccacc 240  
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<210> 1516  
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<212> DNA  
<213> Eucalyptus grandis

<400> 1516  
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<210> 1517  
<211> 416  
<212> DNA  
<213> Eucalyptus grandis

<400> 1517  
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gctggttcgg cttcggcatc ttccattcgg gcattgaagt tcatggcaaa gagtatgggt 360  
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<210> 1518  
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<212> DNA  
<213> Eucalyptus grandis

<400> 1518  
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<210> 1519  
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 <212> DNA  
 <213> Eucalyptus grandis

<400> 1519  
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<210> 1520  
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 <213> Eucalyptus grandis

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 <212> DNA  
 <213> Eucalyptus grandis

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 <212> DNA  
 <213> Eucalyptus grandis

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 <212> DNA  
 <213> Eucalyptus grandis

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<210> 1527  
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 <213> Eucalyptus grandis

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<210> 1528  
 <211> 381  
 <212> DNA  
 <213> Eucalyptus grandis

<400> 1528  
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 acaactcggc ctcaacatcc atagactccg cgcggtttc ttcacgaggc gggtcgctgg 180  
 agaccggggt caatcctttg ccgcattcaa tctcttgaag tagctttctc ttttcttcca 240  
 gtagtttccg ctctctgctt tttagccgct caatatgctc cctaattaaa tgggtctttc 300  
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 ccgaacagga atccagaccc t 381

<210> 1529  
 <211> 524  
 <212> DNA  
 <213> Eucalyptus grandis

<400> 1529  
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 agggcgaaat ccggaccttc ttcttcttgc tcccctttct tcctgcagct cgaatcgat 180  
 cgtttctgct gtccgtccat ccgatcgaca tggccgcagt cttccagctc gacggcgacc 240  
 gcgctgccga cgccctcccc gattcgccgg ttgtcgatca ggagaaaatg ccgatcgca 300  
 cgagccatga tttatgcta catggggggg tttgtcgat atgcttgagg aagattgtgc 360  
 tccaagaaac tgccctcgta aaagggttgc agcacgccta ctgtgtgata tgcattctcc 420  
 gctgggcctc atgtaaggag agaccaacct gccctcagtg taaacatcct ttcgacttcc 480  
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<210> 1530  
 <211> 185  
 <212> DNA  
 <213> Eucalyptus grandis

<400> 1530  
gaactggctg tctgggatca acatagggaa gcgagtgcac atgtttatca aaaggaccca 60  
gaggtccaga tgtagtccta acagatnggc tgtcaatact agcacagggg atttcaccag 120  
acatcggtcg cccattgggt agaagaggga ttggatgtcg agattcatgt ctagaagaag 180  
aagaa 185

<210> 1531  
<211> 385  
<212> DNA  
<213> Eucalyptus grandis

<400> 1531  
tcagctagcc gctccacccg cttcttcacc cggcagttgt cctgcgtgca gcggtagtag 60  
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tcgtccagga catccacatc gctcatggtc ttgaagcaaa acctcggctc cctcaccttc 180  
ctcctcccct ttatcttctt catcttcaag gctgaaaccc ccatgctctg gtggtggtgg 240  
tgatcacgat aatgatcgcc atgatctcca ccgcccggat aggatctcat gaccaagctg 300  
ctctgggtcac tcaactcacc ccatgccag agattcgggg ttgatctttg caaagacaga 360  
agctggggggc ctcccaagag ttcag 385

<210> 1532  
<211> 153  
<212> DNA  
<213> Eucalyptus grandis

<400> 1532  
tcgggggtcaa tccatctggt gcagaacata aacgcctgct ttggtcccag gcattttctg 60  
cacagggtcca cctaggagga agaagaacat ctactggtaa cttctccat ttaccacagc 120  
tatcacattg aaccattgc tcttgttccc ccc 153

<210> 1533  
<211> 417  
<212> DNA  
<213> Eucalyptus grandis

<400> 1533  
cagaaagtga ctgcgccatg tgtaggagta gggagaggct tggatgcaca ttccatttctg 60  
cctccttgaa gccctccaac ggcgcagata tttccttgct tttttaggca aaatggtgaa 120  
aaactggtga taataaaaag aagccctggt tagctataaa gggaaagcccc atcctttctc 180  
ctccctttct ctttcttacc tgccccccc tccccctctc tggctctcgc tctctctctc 240  
tctctcagtt ctttctcgga cgggtgtctg tgcgtggctt ttgatcggtc atcacctgag 300  
gccgcgtctg caagcaagtg aagaaggagg acaaggaata tggcgagaga gaagatcaag 360  
atcaagaaga tagacaatgt gacggcgagg caggtgacgt ttctaagaag gagacga 417

<210> 1534  
<211> 574  
<212> DNA  
<213> Eucalyptus grandis

<400> 1534  
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tgatccgacc tcgagccttt cctcctctgg tttgactcgc cgctaccgcc gccgcccttc 180  
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gacggcagag gcacgcggcc agcctctatc ctattgacat cttccaccag gtctctgtag 300  
tggagcttaa tctcctctag ggttttgccg ggcacgtcgg acgctacctt ctcccacaa 360

tccggggaaa	cctcgaagtg	ggtagccagg	gcattctcga	acgccttgtc	ctgttcctta	420
ctccacgagg	aacaactagg	gctcactgct	tcatcgacag	tcatcaaagc	aaaacccaca	480
cacccttcca	actccgaacg	acttcacgcg	actcagcagc	gcgaccaa	gaaactcgac	540
ggcaaatct	acggagctat	cgaaccaacc	ccaa			574

<210> 1535  
 <211> 497  
 <212> DNA  
 <213> Eucalyptus grandis

<400> 1535						
accgacctcc	tctctccacg	cggccactgt	cccgtcgcgc	gaattcgccc	cgccgtcgta	60
ggagaccgca	tcctccgccc	ccgcggcgat	ggccccagct	tcattccctg	cgctagcaac	120
gcatttcaat	ggaagtatgc	tcaatgatac	taactcatct	ggtgaaagtc	acacacgtaa	180
tggaaggcca	cgaggagatg	ccagggggaag	gaatcaatta	cttcctcggt	actggcccag	240
gataacagat	caagagctac	aacaaatctc	aggagactcg	aactctgtaa	tcactcctct	300
gtttgagaaa	atgttgagtg	ctagtgatgc	aggtaaaatt	ggacgtttag	tgctgccaa	360
aaaatgtgcc	gaggcctatt	ttcgcgtctat	ttctcagctt	gaaggattgc	caactcaaagt	420
tcangatgcc	aaaggctcgg	agtggatatt	caatttcgat	tctggccaat	aataatagta	480
gaatgtatgt	tctggaa					497

<210> 1536  
 <211> 454  
 <212> DNA  
 <213> Eucalyptus grandis

<400> 1536						
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gagagggcga	acaggcgccg	attttcgggc	tcaacaccat	ggctctgcgtc	cccgtgatcg	180
gcggggctcg	cgaattgggc	tccacggagc	cgatctacca	tagcccagat	ctgctgaaca	240
aggtcaggaa	ttgtttcaat	ttcactgggtg	ggatggaatt	agggtttgggt	gggaatggta	300
acgatcaggg	cgagagcgat	cctttcttcg	ctctggctca	atgatccggc	gggcacggtc	360
gaggtcaaag	acagcgccgt	cgccgggcgg	ccgcggtcaa	gggttcttcg	aattataacg	420
gtagcaatca	tgggtctaaa	tcgattcaac	tcga			454

<210> 1537  
 <211> 266  
 <212> DNA  
 <213> Pinus radiata

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aagcaatgca	ccaaatctgc	agccacaggt	aagggcgga	tcaagaggat	tcgtaggcaa	120
caggaggctg	ccccttcgcc	gccagaggag	gcaactttga	atcagcaaac	tccaccgtac	180
agaggcgtgc	gtcgtcgcaa	ctgggggaaa	tgggtgtccg	aaattcgaga	accgaaaaag	240
aaaacccgaa	tctggctcgg	ctcctt				266

<210> 1538  
 <211> 426  
 <212> DNA  
 <213> Pinus radiata

<400> 1538						
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catcgcgga	gcattttaaag	acaaagacag	gggtgcacatt	attgattttc	agatcgctca	120
aggtagccag	tgggtaacat	taattcaagc	atttgcagca	agacaagggtg	gttcgcctca	180

tggtcgcctc	acaggtgtgg	atgatcctca	atcagagtat	gctcgaggtc	aaggattaaa	240
tttagttggc	gaaagattat	caaagcttgc	agaaagctac	caagttcctt	tcgaatttca	300
tggtttgtct	gtttttgggt	ctgacgttca	tgctgagatg	cttaagattc	ggcctgggga	360
agctttggct	gtaaattttc	ctttgcagct	ccatcatatg	cctgatgaga	gtgtgaatac	420
aagtaa						426

<210> 1539  
 <211> 447  
 <212> DNA  
 <213> Pinus radiata

<400> 1539						
cgacggcgtg	gtttttacac	agtcttcgga	ctcttcttgc	tcggagtctt	cccaaccacg	60
gccggcaaa	aaatacaaaa	aaacccatag	caagaaagcc	caagacggct	ctcagccacg	120
aaggtgcagc	cattgtcttg	tacagaagac	tcctcagtg	agagccggac	ccttgggacc	180
gaagacgctc	tgtaatgctt	gtggtgttag	gttcaaattc	ggcagactcg	taccagagta	240
ccgcccggca	ataagcccca	ctttttttga	gcgaggttca	ctccaatagc	cacagaaaaa	300
tcctcgaaat	gagacgcca	aaagaagaag	aacaacagag	gccagagcta	acgtcccaga	360
cgtgttcaag	cggcgccaac	gagtcatttt	cagacaattc	tttaccgtct	gaagagtccc	420
ttctagttta	acccacaggc	gtgaaat				447

<210> 1540  
 <211> 382  
 <212> DNA  
 <213> Pinus radiata

<400> 1540						
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ctacgacacc	ccggaaaaag	ctgcccgtgc	atatgacttt	gccgtgtatt	gcctcagagg	120
gtccaaggcc	aagttcaatt	ttccccactc	tcggccgaaa	ttttcctgcg	cttcatttct	180
atcaccgcag	caaattcaaa	ccgcggcgcc	caagttcgcc	gcagaagaat	tcgggcttct	240
ttccgaaaat	ggcgcgccat	cctcatcata	tggtttggaa	aaggntatg	acattaatag	300
cgaacagatt	acttggaagc	agggtgcgac	atgtggggat	tcagtagcat	ttgaaagtat	360
ggagaatggc	ggatctttca	ac				382

<210> 1541  
 <211> 368  
 <212> DNA  
 <213> Pinus radiata

<400> 1541						
ggtgatttga	gagggaatag	cacggaattt	tgtcataaca	cgaacaccta	caccaggtag	60
ccagccatgc	cccagaaata	ttttatttga	cagagcaata	tgactagaaa	gaagagacgt	120
tccagtctgt	ttgacatgac	gccggtgagt	tttttcttcc	tgtcttaaat	tcttgggtgtg	180
gtgggcatgg	aagggtattca	ggaggcgtct	tgggcaaaga	tcccaaaaat	tggatttgca	240
atcaatcatg	attcataatt	gttctgaaaa	ttatgctaag	aactaatctc	atctttcaa	300
cctcaaatgg	tattcttttg	tttgaagttg	nttctaagtt	tctttaatgt	ctattcataa	360
tttcattt						368

<210> 1542  
 <211> 370  
 <212> DNA  
 <213> Pinus radiata

<400> 1542						
caagcctaga	gtatgatttg	gcctaccagg	ccttctatca	gcttcttcct	tatcacaat	60
tcttgactt	cacaagcaac	caggcaatac	aagaagcgg	ggacaatgct	tctaataatc	120

atatcattga	cctcgagatc	agacaaggcc	ttcagtggcc	cagcttcata	caatcgctag	180
cccacaggcc	tggaggacct	ccgaagctgc	tcaagatcac	agcgatagga	caagacgaga	240
agaggctcaa	acagacaggt	aggcgtttgc	ttgagtttgc	agaatcaatg	gagattgcat	300
ttgcttttca	cccggttgtt	gtggacttgg	agaacctgga	tgaatcggcc	ctcaatataa	360
aagcccacga						370

<210> 1543  
 <211> 404  
 <212> DNA  
 <213> Pinus radiata

<400> 1543						
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gcttcgtaac	aaacgtggcg	attgatccta	ccttagcctg	aaaatgctgt	caggaggcta	120
cgcaaccaga	tccgacacta	ctactgtcaa	caacggatcc	gctaattggc	caatagggaag	180
tgctccccc	agaattaact	cgatacaaaa	taataatcca	ggagctgtca	ggcctggctg	240
gggaaccatg	ccccttcaca	tgaatcctta	tcatccccaa	tcaatgcctc	ttccgcccc	300
caatggatatg	cagggtcagc	ttgtgtgcag	tggatgtaga	actcttcttg	tttatccgca	360
aggtgcacca	aatgtttgct	gtgcagtatg	caacacagtc	actc		404

<210> 1544  
 <211> 339  
 <212> DNA  
 <213> Pinus radiata

<400> 1544						
tatgtctctg	catttcagcc	agtcctatggt	ttcaagttag	ttagtccaat	aaagcagaga	60
tgggtcgtgc	tccatgctgc	acaaaagtgt	gtctcaacaa	gggagcatgg	tctgccgaag	120
aggatagtct	tctgggaaga	tatatccaaa	ctcatggtga	aggcaattgg	aggtctctgc	180
ccaagaaagc	agggctgcga	agatgtggaa	agagctgcag	attgcgttgg	ctaaactatc	240
ttcggccatg	tatcaagcgg	ggaaatatta	caacagatga	agaagaactt	attatcagaa	300
tgcattgctct	cttgggcaac	cgatgggtcga	taatagcag			339

<210> 1545  
 <211> 395  
 <212> DNA  
 <213> Pinus radiata

<400> 1545						
ccgggtccggg	cggtggagag	catcagcctt	ggagttacag	accaggaaaa	tacaagatgg	60
gtagatctcc	ttgctgctcc	aaagaggggc	tcaaccgcgg	ggcctggacc	aaaagggagg	120
atatgattct	ctccgaatac	gttcgaattc	atggcgatgg	tggatggaga	aatcttccgg	180
aaaaagcagg	tcttaagaga	tgtggaaaga	gttgcagact	acgctggttg	aactatcttc	240
gtcccgatat	taaacgcgga	aacatttgcc	ccgccgagga	ggagcttatt	attcggctgc	300
atcgcttct	tggcaatcgg	tggtcactga	tagcaggacg	actgcctggg	cgaacagaca	360
acgaaatcaa	gaactactgg	aacactcatc	tgagc			395

<210> 1546  
 <211> 390  
 <212> DNA  
 <213> Pinus radiata

<400> 1546						
gttctgtcaa	gaccagcaa	gaattttgtt	ccgggtttga	aggtgggaga	agtgaggtga	60
ttcctccttt	ggaagatgtg	gaagggtcca	caccacacgat	tggggggagg	aagagaaaaa	120
atgtttacag	aggtatcaga	cagcgtccat	ggggaaaatg	ggctgcggag	attcgagatc	180
ccagtaaggg	ggttaggggt	tggcttgga	cgttcaacac	ggcagaggag	gccgccaagg	240



cctatgatgc	agcgggctaaa	aggatccgag	gtaagaaaagc	taagctaaat	tttgctgata	300
actcgtgttc	tgttaaaaaat	gacactagca	agaaattgtc	aggaaaagaa	aggaaagttg	360
tgctcaaaac	accctgcttt	tgttgtaga				390

<210> 1547  
 <211> 447  
 <212> DNA  
 <213> Pinus radiata

<400> 1547						
agggtccccg	cgaaatgact	gaagaggagc	gggagacgaa	gaaggccgcc	agtgtggccg	60
ccacggctgc	cgaccaggag	ctcaggaaga	aagtgtgcg	ggatctgcac	gcgctgatta	120
atcccaacgc	gactggagag	gcggatccgg	cggagtttcc	aggggatgat	gctactgtag	180
atggggaagt	cacggacgcc	gagtggtttt	acttgggtgc	catgatgaag	tcatttgga	240
atggcttggg	ggtgccggga	caggcatttt	gcggtggcat	gcctatttgg	atcattgggt	300
cagaaaagct	tcagagctac	aactgtgagc	gggtcgtca	ggctcagcaa	ttcggcattc	360
aaaccatggt	atgtattcca	acacctaata	gagttgttga	ggtgggttcc	acggatttaa	420
atccgcagaa	ctgggatttg	atacaga				447

<210> 1548  
 <211> 357  
 <212> DNA  
 <213> Pinus radiata

<400> 1548						
cagaaatctt	gtgatccttg	tgattataat	caaaggctcag	ccttgcaagc	aaccgtgaag	60
ctgtgttcag	ttcagagctt	ctcttgcccc	atggattcgg	agcttatgat	ggatgccatg	120
cggaaccttt	cgaataatgg	attcgcact	tcttccatgg	aaatgttagc	ggttatgccg	180
gatcagatta	ctgtcgaagc	accaccggat	tcgtcgacgt	tggtcgcggc	accacgcaat	240
ggccgattgg	caggggagcg	gcgggcaagg	ccgcacccga	gtcaagtgtc	caaatgccct	300
cgctgcgatt	cgctaaacac	aaagtctctg	tactacaaca	actacaatct	ctcgag	357

<210> 1549  
 <211> 395  
 <212> DNA  
 <213> Pinus radiata

<400> 1549						
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gccaggttac	tttctcgaaa	cgcaagaacg	gattgctaaa	aaaggcattc	gagctttctg	120
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ttgcaagcca	cgacgacatg	gcaacaatac	tggaataata	tcgaatatac	acggaaacag	240
atggaaacat	ggagtcgtcg	tcggtccaaa	gcgtgaaggt	ttgactagaa	tgagaatttg	300
aagtttaacc	cctgcaaata	ttatattgaa	gggaaatcat	ggtccaaaat	caagtcgcca	360
cccaagttaa	agtgcaatgt	aatcacttta	gcttg			395

<210> 1550  
 <211> 634  
 <212> DNA  
 <213> Pinus radiata

<400> 1550						
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agatttcaca	gtgaccttg	aatacaggta	agcgtaaagga	tgaattttga	caatggagga	120
tcacggaggg	gacgacgat	tcagagtgat	gtagtaggga	gacgcacatt	tcgtcgcagc	180
gagccttata	gactataccc	taatgatagg	aatggatatg	gtcccaggtc	ttccaggcct	240
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tctgtatgca	acaactgtgg	agtttcaggg	cacattgcat	cgaagtgtcc	aaaagagcaa	360
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tgtaacatgt	gtggtaaaac	aggtcacatg	gcaaaggaat	gttctgtctca	tgagctagga	480
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cctaatagata	aggcctgcaa	taattgtcgc	cagactggcc	acttggctcg	agattgtatg	600
aatagcccgg	tttgcaatgg	ctgtggtgaa	cctg			634

<210> 1551  
 <211> 612  
 <212> DNA  
 <213> Pinus radiata

<400> 1551						
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cagctacagg	aagttcgaat	tctggttcct	tggtgactt	gtctaaggac	aaaatcgacg	180
acaacagggg	gaagaagaag	cagaacccaa	ccgatgaagc	gataatccct	gaaataccgc	240
ctataaaagga	gactcccagg	tcacagaggg	cggtgcccgg	gcggtgctcg	agcaagcggc	300
gcagaagctc	aggagcccca	attcgcggtt	gggtctacttc	tgaagattac	gcattgcaga	360
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cgccccagca	gcagccaagg	cgctgcactc	attgtctcag	ccagcgaacc	ccgcagtggc	480
gattggggccc	gttgggtccc	aagaccctgt	gcaatgcctg	cggtgtgagg	ttcaagtctg	540
gcaggtctt	ccccgaatac	aggcctgcca	agagccccac	tttcattcga	tacattcatt	600
caaattccca	ta					612

<210> 1552  
 <211> 562  
 <212> DNA  
 <213> Pinus radiata

<400> 1552						
gtcatccata	ttttcttttt	cagtctgcaa	tacaaattgt	tattcgagat	acgattgatc	60
atgcttgaag	gctatgccta	tgcttgcgga	aacataccgt	gacagctttg	agacgacttc	120
gggaggtagc	agcgtggatc	tggtaggaat	ggctctacca	ggtttggccc	ctaatttgtc	180
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taccatcacc	aagtccagag	agagctggtc	tgagcaagag	cacgataaat	ttctcgaagc	300
ccttcaacta	tttgatcgtg	attggaaaaa	gattgaagct	ttttaggat	caaagactgt	360
catacagatt	cggagtcag	cacaaaagta	cttcttgaag	gtccaaaaga	atggcacaag	420
agaacatgta	ccacctctc	gtccaaaacg	caaagcatct	catccatacc	cacagaaggc	480
ctcaaaaaat	gttctgtgt	cacagcaagt	atcaactgct	tttccaactg	ctgctactca	540
actagattct	ggatattatc	ca				562

<210> 1553  
 <211> 392  
 <212> DNA  
 <213> Pinus radiata

<400> 1553						
caacaatgtt	ccatattgag	acctactttt	gtccgcattg	cctccactcc	agaacgttgt	60
attttcttta	atgcattgag	cctcaatatc	ttctcttttg	attgcacagt	cgccaaaccc	120
atgcttctat	accttgagac	taatgcacga	gaaagagcaa	catctctctc	aaccgttggg	180
cgtggcctct	gacggtaata	acgaagaaat	tcacgagAAC	caagcatctt	gcatgttgtt	240
ccattttcag	actttctttg	gattaccagt	tcagcccctc	caaagccaag	ttcaatatgt	300
acattgagat	tttcttctgt	gggcactatt	tgcatccac	tttcatccgt	gtaactgctg	360
ctgtagtcat	aaaagtccgc	taaataccta	tc			392

<210> 1554

<211> 570  
<212> DNA  
<213> Pinus radiata

<400> 1554

tcgttctcaa	gcaccagga	gagcatggaa	aggcgagatc	agagtccggt	tgcagctcgc	60
caccccatga	gaaaacacta	cagaggagtt	cggcagaggc	aatggggcaa	atgggtagcc	120
gagattcgcc	tccctcagaa	tcgaaccccg	ctctggctcg	gcacctttga	caccgcagaa	180
gcagcagctc	tagcatatga	ccgagctgct	tacagatggc	ggggtgagtg	cgctcggctt	240
aatttcccc	atttgttctc	aaaaaagtat	cagaattcct	ctcccagctc	caccaatggc	300
aggattcctc	gcctttcttg	tgaaaaatct	gatcagaaat	atgcatataa	tggtgaccca	360
gttcatacga	atgtatataa	gggtccccc	attcggataa	ctgcatacaa	cggcgaccca	420
gttcctatag	atgtatatag	gagtgaccca	gttcgggtaa	gtgcatatac	tggtgaccca	480
gttcggataa	gtgcttatag	tggtgatcca	gttggcaata	ccgttacttt	agcggaatcc	540
gagcttgaaa	gctcctgcag	ccatgaatcc				570

<210> 1555  
<211> 392  
<212> DNA  
<213> Pinus radiata

<400> 1555

cttagcgacg	gttcccaatc	cctagtcctc	gcactttact	cgtctctctg	tgaagatgag	60
gagattgctc	tgtgagaagg	gtaatacaaa	caaaggggcg	tggacccaac	aagaagatgc	120
ccgactcatc	gcctacattc	gagcccacgg	cgaaggcggc	tggcattccc	ttcccagggc	180
cgcagggtctg	ctgcgatgtg	ggaagagttg	caggctgcga	tggataaatt	acctgcgtcc	240
taatctgaag	cgtggaaact	tctctgaaga	agaggacgat	ctcataatca	aactccacaa	300
cctcttgggc	gataagtggg	ctcttatcgc	gggtcgattg	ccgggccgga	tggaagacca	360
gataaagaac	tattgggata	cccactttaa	ga			392

<210> 1556  
<211> 364  
<212> DNA  
<213> Pinus radiata

<400> 1556

ccttaccgag	gggaagcaac	gaggtgtttc	tcttttccca	caagaagata	tcaagcaaat	60
agttacacac	caagaaaatc	cacaatgggt	agatctcctt	gctgcgcaaa	ggaagggctc	120
aaccgcgggg	cctggacgaa	aacggaggat	attattctct	ccgaatacat	tcgaattcat	180
ggcgatggtg	ggtggagaag	tctcccaaaa	aaagcagggc	ttaagcggtg	tggaagaggt	240
tgtagattac	gttggttaaa	ctatcttcgt	cccgcacatta	aacgcggaga	catttcccca	300
gctgaggagg	agctgattat	tcggctgcac	cgcttctctg	gtaatcgggtg	gtcgtcgata	360
gcag						364

<210> 1557  
<211> 355  
<212> DNA  
<213> Pinus radiata

<400> 1557

ggagcaccca	aaatggggaa	gacgaagatg	gagatgaaac	acattcaaaa	ccctagccgc	60
cgccaagtta	ctttctcgaa	acgcaagaac	ggattgctaa	aaaaggcatt	cgagctttct	120
gttctctcgc	atgctgaagt	cgcccttatc	attttctcgc	aaactggcaa	gatcagcgag	180
tttgcaagcc	acaacgacat	ggcaacaata	ctggaaaaat	atcgcatata	cacgcaaaaca	240
gaaacagatg	gaaacatggg	ggcttcgctc	gtccaaagcg	tgaaggttgg	tgaatcacia	300
ttgaaagcgt	tgcacgagag	gatggacaat	ttgaaaaaaa	aggaacgaaa	catgg	355

<210> 1558  
 <211> 478  
 <212> DNA  
 <213> Pinus radiata

<400> 1558  
 aaaaagctgt aaaacggtat atatagagcg ctctccagtc taacatcttg gattgattgt 60  
 tttctgttag aaattcccat catccctctg tgtcttcctc cttttgaatc cagagactgt 120  
 ttttatggtg gctgtaaagt ctgaaataat gcccaaattc gaagggaagt ctgcgaaatc 180  
 cctggattca acattcaagc tgttcggcag aacgattgct gtgaaaaatc cctgtgatag 240  
 cagcagcaat ggtattcatg tcatgaggat tccagctgaa gcagtgaatt cagcagtcctc 300  
 caaggcttct gaaacgcac atcatgatga gaaacagaag cagaatgagg attcagaaaa 360  
 ggtgggtaaa aagccacaa agcttggtgc ctgccctcgc tgcgagagca tggataccaa 420  
 attttgctat ttcaataact ataatgtcaa ccagcctcgg cattattgca ggagatgc 478

<210> 1559  
 <211> 389  
 <212> DNA  
 <213> Pinus radiata

<400> 1559  
 agaaggttg aatggcttag tccgctcatt tgatggcgaa cagatctttg tggggagggtt 60  
 cagactttga ttatgagaac gaagccgata cgaggaaggg tccatggact gtggaagagg 120  
 acatgcagct tggatttgta aatttgcacg gagaaggacg ctggaacttt ctgccagag 180  
 catctggcct ccagagaact ggtaagagct gccggctaag gtgggttaac tatctccggc 240  
 ctgatctcaa gcggagcaag atcactcctg aagaagaacg tttgattatt gaactccatc 300  
 gccgttgggg aaataggtgg tctcgtattg cacaaagttt accgggaagg acggacaatg 360  
 aaatcaagaa tttctggaga actcgtatg 389

<210> 1560  
 <211> 354  
 <212> DNA  
 <213> Pinus radiata

<400> 1560  
 agatgcctcg ggtagcagtt tacaagagcc tgaggagaat gatgaagaac ttgctcaagc 60  
 tcttgaagca agtttgaaaa tgggttcaca gcaaaatcct cccagtcagc ctccatcata 120  
 ctcttaccct agaggataca ggatctgtgc tgggtgcaat catgagatag gctatgggag 180  
 gtttttaagt tgtatgggga ccttatggca tccagattgt ttttgttggt ttgcatgtag 240  
 tctaccata cgtgaacacg agttttccat gtcagggaat gatccatacc acaaatcctg 300  
 ttacaaggaa ctccaccatc caaaatgtga cgtttgccac cagtttatcc ctac 354

<210> 1561  
 <211> 248  
 <212> DNA  
 <213> Pinus radiata

<400> 1561  
 gccaggtgag gcattggcag tcaattttgc attccagctg catcacatgc ctgatgagag 60  
 tgtctctacc aggaaccca gggatcaact tttgagaatg gtaaaaggcc tgagtcctaa 120  
 agttgtaaca gttgtggaaa gggaaatgaa cactaatact gctcctttcc tccctcggtt 180  
 catggaggca ctgaattact actcagctgt gtttgaatcc ttggatgta gcctcgaaag 240  
 ggaaaacc 248

<210> 1562  
 <211> 346  
 <212> DNA

<213> Pinus radiata

<400> 1562

tctgtaagtg	cttgagggct	tcttgtatcg	atgaggccat	taacgatggg	aagatctttt	60
agttgttgga	gctgttcaaa	agataatggc	cacgagcgtc	ttaatcgtgg	atcttggagt	120
gctgaggagg	atacaatttt	gagtgaacat	atcaaaactc	atggagttag	tcgatggaca	180
tctcttccca	agaaagcagg	tctaaaacga	tctgggaaga	gttgacagatt	acgttgggtt	240
aactatcttc	gttcagatat	caagcatgga	aacatttctc	cggaagaaga	ggaactcctc	300
atcagattac	atcgtctcct	tggcaatcgt	tggtcgttga	tagcag		346

<210> 1563

<211> 354

<212> DNA

<213> Pinus radiata

<400> 1563

gtttggggat	atatcagaat	gcaggacact	gctgcttcca	catctacaca	gcacagtcga	60
acaagtgaag	aattcttcaag	ttcagcagct	ccagcccat	ttagacaagc	caaagatgca	120
attgagagcg	atgatgat	caggagggtt	cctgaaatgg	gaggaatgca	agcagggtcca	180
tctacatgtg	tgcctatgag	gttagacaat	ccccaaccta	gcacaggcgt	tggtgcccac	240
aggaagagag	ggagagcccc	tgcagacaag	gaacacaagc	gtctcaaaag	attgcttagg	300
aacagagtat	ctgcccaca	ggcaagagaa	agaaagaaag	catacttaaa	tgat	354

<210> 1564

<211> 324

<212> DNA

<213> Pinus radiata

<400> 1564

tagctgccga	gtgtacgaat	gagaaggcat	gcaacaactg	tcgcaagacc	gggcatcttg	60
ctcgtgactg	caccaacaac	ccagtttgta	atttgtgcaa	tatatctggt	catgtggcca	120
gggagtgccc	caaggctcgc	attttggatg	gtaatagggg	tggaagattt	attgacgata	180
ggcgtggaag	atttaattgac	ataatctgta	ggacatgcaa	cgagccaggg	cataccagta	240
gggagtgcac	tggaattctc	atctgccaca	acttgtggtg	gccgtggaca	tggtgcatac	300
gaatgcccc	tctggctcgtg	tgat				324

<210> 1565

<211> 421

<212> DNA

<213> Pinus radiata

<400> 1565

aacggaaaca	ggaccggact	ctggctgctg	ccctccctca	ttaaccattc	ctgtctgccg	60
aactcgaggt	ggctgttagt	gggaaatgcc	atcttttatac	atgcctccaa	ggccatcggg	120
agtggagaag	agatcactat	tccttatttt	gatgttctgg	ctcccttggt	acggcgccaa	180
gctgactgta	agaactgggg	tttcaagtgc	aagtgtgaaga	gatgcattct	ggagcactca	240
ttcaggaaat	tcctagaacc	tataattgcc	ctaaagtgtg	agcaattgga	tgaccaagca	300
aaagaattgc	ttgctggatt	ggatcatcgg	gaaagtgcag	aaatgagtca	ccgggaaaat	360
gcagaatttg	caatgtttgt	tccagaggca	gaggagatca	tccggagttc	ccatgtgttg	420
a						421

<210> 1566

<211> 390

<212> DNA

<213> Pinus radiata

<400> 1566

cttaattccg	caacacaatg	cgttttcatt	ggagttgaga	ttttcagatc	ggcaattgcc	60
aagctcaacg	cccccaaatt	gtgattcgat	gtttccctcc	cactacacag	cgttggcatt	120
gcgtcgccaa	atgtggagaa	accccagaga	gtccggacag	agccattccc	agcctccaga	180
gaaagataga	ggaaaaactt	tcggccaatt	taaggggaatc	cgaatgcgaa	aatggggaaa	240
gtgggtgtcc	gaaattcgga	tgccgagatc	gaaggagagg	atctggctag	gatcctataa	300
aactgtcgag	caagccgccc	gtgcttacga	tgccgcactc	tattgcctca	gaggaccaa	360
cgccaaattc	aatttcccca	attccgtgcc				390

<210> 1567  
 <211> 353  
 <212> DNA  
 <213> Pinus radiata

<400> 1567						
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atltgaaggg	actaatgggt	ctgatcagcc	acaagatggg	actaatatat	taactgcagg	120
tgaagcatcc	actgagccag	tggaggaaga	actagtgtat	gaggccaaaa	atggagattc	180
agggaaatta	gaagatgtgg	gtagtccagt	agaggctgga	gaaagtggta	gcactagcaa	240
ttgcctggga	tcctctgtct	aagaaaatcg	gaaatatgaa	tgccaatact	gttgagagaa	300
gtttgcaaat	tcgcaggctc	tcggggggcca	tcaaaatgcy	cacaaaaaag	aga	353

<210> 1568  
 <211> 436  
 <212> DNA  
 <213> Pinus radiata

<400> 1568						
agtattgaaa	ttccctgttt	ttgatctgat	agctatggat	ctgatggagt	cttttgaggc	60
aaaggggaag	ggagagaaga	ggagaacggg	gaggggaaaa	accagttga	agaggattga	120
gaacgggacc	agcaggcagg	ttactttttg	taagcgcagg	aacgggtctgc	tgaagaaagc	180
ttacgagctc	tcggtgcttt	gtgatgccga	agtggcactt	attgttttct	ctccaagagg	240
gaagcgctat	gagttcgcta	atcccagcat	gcagaaaatg	ttggcacggg	acgaaaattt	300
ttcagaagga	agtaaagcaa	cgagtacagc	aaaagagcaa	gatgtccagg	gtttaaaacg	360
acaaattgcy	aatatggaag	aaaggggtga	aattcttgaa	tccatgcata	gaaagatgtt	420
gggggatagc	tgggcat					436

<210> 1569  
 <211> 349  
 <212> DNA  
 <213> Pinus radiata

<400> 1569						
gttcaatttt	ttcacttgca	gtggaaatag	aagcctgcag	gtacctctag	gctaccggag	60
ttcaaattccc	gcacgatcac	actcccttct	tttaacattc	cgagttcgaa	tccccggaaa	120
cttctcgaca	tggttaagcc	ctcgcaaaaa	cagaatatcc	atgtcaatgg	caagccggaa	180
agccgctcac	tgatgtcgcy	gcaattcaag	ggaatccggc	taaggaaatg	gggaaaatgg	240
gtgtccgaaa	ttcgaatgcc	caattgcagg	gccaaaattt	ggctgggctc	ctacgaatcc	300
ccagagaaaag	ctgcccgcgc	ctatgacttt	gcagcgtatt	gtctgagag		349

<210> 1570  
 <211> 580  
 <212> DNA  
 <213> Pinus radiata

<400> 1570						
agagagagaa	cgtggggagaa	aacctgcaaa	tgcccggtgaa	gaacctctga	atcatgttga	60
ggctgagcgg	caaaggcgtg	agaaattgaa	ccagaaattt	tatgagcttc	gtgccgtggt	120

tcctaattgta	tcgaaaaatgg	acaaaagcttc	tctgctcggc	gatgctgctg	cttatatcaa	180
agatctctttt	tccaaacagc	aggatttgga	gtccgagagg	ggtgatatgc	aggttcaaat	240
tgacactata	aagaaggaat	tattgatgaa	ttctttgaag	ttggcagcta	aagaagcaaa	300
agatctttca	agcattgacc	ttaaaagttt	tagccagggg	aaattccccg	gcttgaattc	360
agaagttcgc	attgttgccc	gagaggcgat	aataagaatt	cagtgtacta	aacataatca	420
tcctgttgcg	agactgatga	tagcactgca	agaacttgat	ttggaagttc	tccatgcaag	480
tatttctact	gtgaaggatt	ccttaattat	ccagacagtc	attgttaaaa	tgaccagagg	540
tttgtagacg	gaagaccaac	ttcacgccct	gctttgtaag			580

<210> 1571  
 <211> 469  
 <212> DNA  
 <213> Pinus radiata

<400> 1571						
gttgacggag	caggcagagc	gcattggctg	cgtcaagatt	ggcagcaacg	gtttgttgc	60
gttggcgagc	cggttaaagg	tggcagcatt	tgacctggaa	acacatggga	tttttttcag	120
agtggaaaga	gaagcagatg	atgagattat	cgttgaatct	gtagatgtta	accgggacag	180
ggttttggta	gcgtcaaatt	acggtaattg	taggggttcg	cgaatgagga	cactcgaaaa	240
catatgcacc	ttaccgtttg	acgggttagg	cggagcagat	gataacagta	gcggtagtaa	300
taacaataac	aatagtagaa	aaattcttgg	gactttgaat	acatggctgg	catttgtctg	360
cattgacggg	gtggtgcacg	cttgggacgc	tgacagcggc	gcacgactct	accgtttggg	420
agaacaagtc	ggcgatgtgt	tcgatttggt	atcagacaat	gaacacgtg		469

<210> 1572  
 <211> 337  
 <212> DNA  
 <213> Pinus radiata

<400> 1572						
gggaggcaga	gaaggaacgg	aaaaaggagt	gaatttttgt	gggtttgtgt	ttattgggaa	60
gatgggggtg	gtgtcgtcca	agggtggaga	tgaagaatta	gtgaaaagat	gcagggacag	120
gaggaggcta	atgaagcagg	cagtgaattc	caggcacaat	tttgctgcag	cccacattgc	180
ttattttgag	gctctgcaaa	acacagggaa	tgctctggta	caatttgctg	agggggaatc	240
cagtgtctat	aatggcaatg	ctattgaaga	agcggccaca	ccaatgccag	cgacccattt	300
aacagcatct	catcgccatc	ccatgaaatt	ccatctct			337

<210> 1573  
 <211> 341  
 <212> DNA  
 <213> Pinus radiata

<400> 1573						
gttctatact	gtcacgggtg	ttcttttaat	ggctcgttcc	tcctccctca	ccatggagaa	60
gaatatgtac	tgtagttcta	ctattctgga	gtatgacact	gaggaaggga	gtagttttaga	120
ttgggaatgc	gacatgtccg	aggaagaaga	agatcttata	atcagaatgt	acaaacttat	180
cggcaacaag	tggtcgtgta	ttgccggggc	cattcctgga	agaaaagcag	aggagattga	240
gaggtactgg	gccatgagaa	cccaacaatt	gtgcggcggc	gatgatgcta	ttttgacgaa	300
gaaacagcag	aaaaccaata	tgatatcgat	taagtaccgc	g		341

<210> 1574  
 <211> 479  
 <212> DNA  
 <213> Pinus radiata

<400> 1574						
catatcattc	atatgaatat	ggatagcagg	caatcagggg	aagaggaaga	ctgcaacgtc	60

actcggccag	gaggaggagg	aggaatatca	ttacatgtta	gcagcgtgga	atattgccag	120
aagagtgcct	gtgttgccca	tgatatctct	tctgatgaac	aagatctgat	aaatagactt	180
cacaatcttc	tgggcgcacag	gtgggcactg	attgcggggc	gccttccatg	gagaagaaga	240
gaggagattg	agaattactg	taaaatgaga	tacacagcca	ctacctcttc	ttcacgctct	300
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ttgggttgat	tcagattgtt	taggtttatc	tccacttgaa	aatatgtgtg	gatatttggt	420
tgtttgtttt	atcaaaaacca	agtatagaag	aaataaaaatt	tgatcgtttt	atcgatttta	479

<210> 1575  
 <211> 402  
 <212> DNA  
 <213> Pinus radiata

<400> 1575						
attgatggga	tcaccccttg	gaggaggact	tggtcttttc	cctagaatgg	gtggagggat	60
tgggaatggc	ctcaaggagg	attgggggtg	ggcttgccgg	gtctcggagc	tactgcgctt	120
accattggag	cagcatctcc	cgccaaccag	ctttcttctg	atgggtatgg	caacagccat	180
ggagacaact	caacagtatc	gccaattcct	tatgggttgg	acgtaagtgt	aagaggcagg	240
aaaagagggtg	gaccgggtga	gaaagtagtt	gaaagaaggc	agagacgtat	gataaagaat	300
agagaatcgg	cagcaaggtc	gcgagctaga	aaacaggcat	ataccggtg	aattggaagc	360
ttgaagttag	cagacctcaa	agaagagaac	aaggaattgc	ga		402

<210> 1576  
 <211> 355  
 <212> DNA  
 <213> Pinus radiata

<400> 1576						
cttcagccgc	ttggagtcca	cttcccagct	gctacatccg	ttgtcctcca	gcgcactgct	60
gccatcgtgg	gagaagccgt	cgctgctccg	cttgcgagcg	gcgtctaagc	tgctgatttc	120
gtcgtccagg	tggacaacga	tgcccttttc	ggggtcccgg	cagcgcctcc	gtagcgtgga	180
gttccagtgg	ttcttgatcg	cgttgtcggg	gcggccgggg	agggctcggg	caattgttgc	240
ccatttggtg	ccgtgctgcg	cgtgggcctg	cagaatagca	gcctcctcgg	acggggtaaa	300
aggctctgtc	tccacctgag	ggctcagctg	attgcaccac	cgtagcctgc	acgat	355

<210> 1577  
 <211> 463  
 <212> DNA  
 <213> Pinus radiata

<400> 1577						
gtgaaacttg	agcaatttaa	cttgattctg	tggagactga	tgctgatgag	aaaattgagg	60
acaagggagg	aagcttgaaa	atgactcgcc	accagaaacg	caaaattgat	gaaatccacg	120
ttgaagaggg	tcagggtcat	gaggattttg	atcctgctag	ccttcgagag	catgaggagt	180
ttacgaaagt	taagaacata	gcaaaggtag	agcttgggag	gtatgagatt	gagacgtggt	240
acttttcacc	tttccctcct	gaatacacgc	attgtgagaa	gttattcttt	tgcaattttt	300
gtctcaattt	catgaagagg	aaagaacagc	ttcaaagaca	tatgaggaag	tgtgatctga	360
agcatccacc	tggagatgaa	atatatcgca	atggaaccct	ctccatgttt	gaggttgatg	420
gaaagaagaa	caagatatat	gggcagaacc	tctgctatct	ggc		463

<210> 1578  
 <211> 343  
 <212> DNA  
 <213> Pinus radiata

<400> 1578						
gaaacaccaa	ggttgggatn	tctagaacga	agcatcacgac	aacagcgcg	atttcaccac	60



ttaggattga	tggagcagca	cccttggcga	ccgcagagag	gacttcctga	acgctctgtg	120
tctgttcttc	gtgcatgggt	gtttgagcat	tttctgcacc	cgtatccaac	tgatgcagat	180
aagcatatat	tggctaagca	aactggcctt	acaagaagtc	aggtatcaaa	ttgggtttata	240
aatgccaggg	ttagactatg	gaagcccatg	gtggaggaga	tgtacatgga	agaactcaag	300
gaagaaaaag	tggaccaagg	tacacacaat	tctgaagctg	aaa		343

<210> 1579  
 <211> 530  
 <212> DNA  
 <213> Pinus radiata

<400> 1579						
cggcaagtgg	ggagtgccgg	acaatttgta	tggagctcag	gaagacagtg	gtggaagtag	60
tggtaaacag	aagaacttga	aggatgggga	ccaattcacc	agtagtgatg	aagctgacag	120
tgagggtcaat	gaattcaaca	ttatgaaaag	aagcaattca	ggggttggat	atgaagataa	180
caaaagaagt	ggggggcaag	gtgatggcaa	tcagtacagg	tcacgtcact	ctcggagcat	240
ctccatggat	agcattatga	gtaagatgca	taacttcagt	gaagacttgg	aacaggaacc	300
gtctcaaggt	cggaatgtca	gacactccca	tagcaattcg	atggatggaa	gtacaaattt	360
caatgtggaa	ttcgggaatg	gggaattcag	tgcactctgag	atgaagaaga	tcattggccag	420
tgagaaaactg	gcagagcttg	caacggtgga	tccaaaacgt	gtcaaaaagg	atattggcta	480
atcgccagtc	ggctgcacgc	tccaaggaaa	gaaagatgcy	ctatatctca		530

<210> 1580  
 <211> 561  
 <212> DNA  
 <213> Pinus radiata

<400> 1580						
ctccactaac	tctttcattt	caacactcac	agcatcggat	ccgtgcgata	aaacttctat	60
actggttcga	tctctcagcc	caacagccgt	aggccgaccg	ccattatcgt	cctctaagaa	120
agcttgcatc	catggaaaac	ctgacgatct	ctcaggaaaag	tgtaacacta	caggcggacg	180
ctgccactgc	tcttcaaaac	gcaagaagtc	cagagtgaaa	agaactatca	gagtacctgc	240
agtcagtgc	aaattggcgg	acattccatc	tgatgaattc	tcattggcgaa	aatatggaca	300
gaagcccat	aagggctctc	cacatccaag	aggctattac	aaatgcagca	cagtgcaggg	360
ttgccttgca	agaaagcacg	tagaacgcgc	cctggacgat	ccaaacgtat	tgattgtaac	420
atatgagggc	gaacacagcc	attctcattc	tggatctgaa	aacacaggcc	tggtactgga	480
ttcgtgagac	ccacatacag	acaaagacat	tattctagtt	ttatattacg	ctacagaatc	540
cgccattatt	acagcgggat	g				561

<210> 1581  
 <211> 357  
 <212> DNA  
 <213> Pinus radiata

<400> 1581						
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ttgccttccc	aaggggtcaag	tttgagttca	tctggttcag	tttggactat	acaacagaac	120
aaaatttttg	aaaatgctct	agctgatttt	gataaagaca	ccccagataa	atgggagaaa	180
gtggcagcca	ggctgcctgg	aaaaactgct	acggatgtta	gaaagcatta	tgaagatctc	240
gtggaagatg	ttacttgtat	tgaagctgcc	gcgttgccct	acccacgtac	agtaactctt	300
cctgttcaca	tgaatggtta	gaaaaatcag	gcgctatgca	cggattgaag	caacaat	357

<210> 1582  
 <211> 522  
 <212> DNA  
 <213> Pinus radiata

<400> 1582  
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cagtgcgctct aaatggcggg agaaaccatg cggatgtcga gggtagact aggaagtgc 120  
gaggacgaat cccgggcccgt caaagaaacc catttcaggg gcgtgcgaaa acggccgtgg 180  
gggagattcg cagcggaaat cagagatcca tggaagaaga ctcgagtgtg gctgggcaca 240  
ttcgacactg ccgaggaagc cggccgtgct tacgatactg ccgccaggag attgcgcggc 300  
caciaagcta agaccaattt ttctgtcacc gccgactacc acaataacgc tggtagcggc 360  
gcactttcct ggactcaggc gctgcatcct cagcagccgg atctgaacgc cgcggctttt 420  
gctttcgat caaacaagag acgtgaagtt tcctctggaa gcgaccggct cgagttcgaa 480  
tctcccaaca atttcttca cgctgcacct ctgagcaggc gg 522

<210> 1583  
<211> 530  
<212> DNA  
<213> Pinus radiata

<400> 1583  
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aggtacgcag tctctacatc gcgtgacgtt caagggagac gggatattca gagtccgatc 120  
gccgccatgg ccgtagacac catacagatg gcgagagtgg gtgtaaaaat gaagatcgga 180  
ggaggcggct gcgaggaaga ggcgtcctcg gctgtgaagg aaacgcattt cagaggagtg 240  
aggaaaaggc cgtggggggag attcgtgccc gagatcagag atcccttgaa gaaaaccaga 300  
gtctggctgg gcacttttga cactgcagag gaggccggcc gagcctacga taacgctgcc 360  
agaaatctcc gcggggccaa ggcgaaaact aattttcttc tgtctcccca caatgacatt 420  
agcaccaagg gcagcagcag cgcgcgccctg tcgagcaata gcaccaccag cgcgcctct 480  
ggtcaaattcc aaaaccaatg gccctgccc ccatatttct attcgaatca 530

<210> 1584  
<211> 435  
<212> DNA  
<213> Pinus radiata

<400> 1584  
gcattgctct gctcgaacac atagtagtct gatctctgcg cttcgagcac tacgagaatt 60  
gcttcacat taccttcac atccaccaat ggccggccgaa gattttaatg acaagaatgc 120  
tgtattcaga aagctccggg ccaaaccgga caacaagatg tgctttgact gtaatacaag 180  
gaatcccaca tgggcatcgg tcacttacgg gattttcatc tgcctggatt gttctgcac 240  
tcctcgtagt cttgggtgtc acattagctt tgctcagatc gtaaacctgg actcatggac 300  
tcctgaacag ttgaaggtca tgagctttgg tggcaatggc cgaggacata cattctttaa 360  
gcagcatggt tggaatgatg gaggtaaaat agaatcgaaa tacacatcaa gagcagctga 420  
gctatataga cagct 435

<210> 1585  
<211> 362  
<212> DNA  
<213> Pinus radiata

<400> 1585  
gaaagacttg cagcttacat ggtggagggt cttgctgcac gaatagcatc ttcaggaaac 60  
ggaatataca aagctttgaa ttgtaaagcg ccaccaagca ctgatacttt atctgccatg 120  
caaataattat ttgaagtttg cccatatttc aaatttggtt gcattggtggc caatgggtgca 180  
atttgatgaag ccttcaagga tgagcagaag gttcatatac tagattttga aattgggcag 240  
ggaagtcatg acataagcct cttaaagtgc cttgcagaaa ggcctgggtg gcctccacat 300  
ttgcgcataa ctgcagtaga tgattctgaa gatgtaagat atattcctgg gggattggat 360  
aa 362

<210> 1586

<211> 362  
 <212> DNA  
 <213> Pinus radiata

<400> 1586  
 caggagccga aaagacaaac tacgaacaaa atccctgtcc aaataacaag aaaaatggca 60  
 gagtcacagg ggctcgtctac acattacaaa ccgtacaggc agaagcagac tctctcaggc 120  
 caccgtggag cggctctcgtg cgtgaaattc tcaaaggacg ggctgtctcct gggcagcgct 180  
 tctctggaca aaacaatatg catatggctg gcctctgctt cttcttctac ctctgcattc 240  
 aagcgggagc tccacggcca cagcgagggc gtctccgact tcgctgggtc gtccgactcc 300  
 cgctatatct gctcggcttc tgacgacaag agcctccgca tctgggacgt ccacacgggc 360  
 ga 362

<210> 1587  
 <211> 389  
 <212> DNA  
 <213> Pinus radiata

<400> 1587  
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 tgtttcagcg aaacctgttg tggttttggg ttttcttggc ttttgccctt tcattctttg 120  
 tttccttgga ttcgaactcg agatctcctg aatattatgg cacaggagag ctggaaccag 180  
 gaggagaccg ggtgccaagt cccggaaggc ctcatgctgt gtgccaacaa ctgtggcttc 240  
 ttcggaagtc cggccaccat gactctctgc tccaagtgtt accgcgaatt cgtgctgctc 300  
 aactccccta aatcgtcctt cgataagccg caacagcagc tgccgatgca ggacgaggta 360  
 tctatcccga gaccggacgt tgctgctga 389

<210> 1588  
 <211> 416  
 <212> DNA  
 <213> Pinus radiata

<400> 1588  
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 atggccacta tccgtttttag tccgagttca aggggtccgt ggttcgaatc ccgcagaggc 120  
 cattttcctt cgcgcctgca gccggggcgc tgaccgtcgt cgcataggcc aagaaggccg 180  
 ttgccgcgct caaagggaat tcacaggtcg aggggtgtgt cagtctctcg caggaagaca 240  
 ggggtcccac aacagtgaag gtccgtttga caggactgac tcctgggaag catggctttc 300  
 atctacatga gtttggtgac acaaccaatg gctgcataac aacaggagca cattttaatc 360  
 caaaaaaatt gacacatggt gctcctgagg atgatgtac ccatgcgggt gacctg 416

<210> 1589  
 <211> 507  
 <212> DNA  
 <213> Pinus radiata

<400> 1589  
 tgcgagtcaa tgttctaagt atcccatattg tcacacatgc ggcaaactctg gtcacctctc 60  
 cagggattgt acggctccag agcttcccc tggagacatt aggttttgca acaattgtta 120  
 caaacaagga catatagctg ccgagtgtac gaatgagaag gcatgcaaca actgtcgcaa 180  
 gaccgggcat cttgctcgtg actgcaccaa caaccagtt tgtaatttgt gcaatatatc 240  
 tggctcatgt gccagggagt gcccgaaggc tcgcattttg gatggtaata ggggtggaag 300  
 atttattgac gataggcgtg gaagatttaa tgacataatc tgtaggacat gcaacgagcc 360  
 agggcatacc agtagggagt gcaactggaat tctcatctgc cacaactgtg gtggccgtgg 420  
 acatgttgca tacgaatgcc cctctggctg tgtgatgctg cgggacatgc gcaggcat 480  
 atgctgcagt ttctacacca cctgact 507

<210> 1590  
 <211> 370  
 <212> DNA  
 <213> Pinus radiata

<400> 1590  
 cgatatttta tgttggtgaa gttggcaaaa ggagcattgg tcttaaaagg tcaaccctgt 60  
 aaggtcctga tcaacccttt gacaagataa aaatggacag aaattcagaa ttttatgaag 120  
 agacatcgtc acagaaaaat caggcatccg gatcaagtga tggaggtagt tttgattgca 180  
 atatttgctt agaattagcc caagatcctg tggtgactca atgtgggtcat cttttttgtt 240  
 ggccttgccct ataccaatgg ctacagatgc actccatcctc aaaagaatgc cctgtttgca 300  
 agggcggtgt agttgaagag aaggtaattc ctttatatgg gaggggtaag gtgggttctg 360  
 ctgatccaag 370

<210> 1591  
 <211> 308  
 <212> DNA  
 <213> Pinus radiata

<400> 1591  
 gttcccagga gaggagagcc tcagctgtct cgatctggcg ttaaggggtt acagaagaag 60  
 aatttcgaag atggttagat cttcttgcta ttcaaagcaa ggtcataggc gtgggatttg 120  
 gaccctatg gaggatatga ttctctctga atacattcga attcatggca gtgatggatg 180  
 gaaaaatatc gctaaacgag cagggtcttaa acgatgtgga aagagttgca gattacgttg 240  
 gttgaactat cttcgccccg acattaaacg tggtaacatt tctcctgatg aggaggacct 300  
 cattatta 308

<210> 1592  
 <211> 361  
 <212> DNA  
 <213> Pinus radiata

<400> 1592  
 ggatattctg gtgtgcattg ctattctggc catgaatttt ggcagaatgt gcgattaggg 60  
 tttgattctg ggtgttcttt tcaggtacag cagagatttg aaggggattt gaatttgaat 120  
 catggaagtt gagtgtgca gccctcggtc ttccgctcag ggggtgtgagg ttgacatgaa 180  
 gccaacgatg gtggtggaag atacgcttaa tcaaggatgc atgcaatatg gatgttcaca 240  
 ctaccgccgg agatgccaaa taagggtccc gtgttgtaat gaagtctttg actgtaggca 300  
 ttgtcataat gaggccaaaa attcaatgga tgtccatcca cttgacagac atgatgtacc 360  
 g 361

<210> 1593  
 <211> 378  
 <212> DNA  
 <213> Pinus radiata

<400> 1593  
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 atgataaacc tacaatatatt gacaaaatac tgcagaagga gattcccagt acagtgggtt 120  
 acgaggatga gaaggtactt gcattcaggg atatcgaccc ccaagcacct actcacatca 180  
 ttatcatccc caaagtaagg gatggcttga ctggcctatc tnaggcagaa gagaggcatg 240  
 aggatattct aggtcacctg ctatacactg caaaagttaa tgcaaagcag gaaggtttat 300  
 ctgatggctt cagaattgtc attaacgatg gtcctactgg atgccaatct gtgtaccatt 360  
 tacatattca tctactcg 378

<210> 1594  
 <211> 333

<212> DNA  
<213> Pinus radiata

<400> 1594  
gattgacgga tcgattgcaa tggcgtttgc ggaagagtat tccgatcgcg atgccgtatt 60  
tcgaaagctg aaggcgaaat ctgaaaacaa gatttggttt gattgcaatg ctaaaagtcc 120  
cagttgggag tccgtgacat atggagtatt catttgctct gattgttcag caatgcatcg 180  
gagttcttgg gtcatgtca gttttgtgag gtctacaaat ctcgatacat ggaccatgga 240  
gcagttgaaa ttgatgagct ttggtggtaa tggccgtgca caattattct ttaagcaaca 300  
tggttgagct gaaggtggga agattgaatc aaa 333

<210> 1595  
<211> 356  
<212> DNA  
<213> Pinus radiata

<400> 1595  
ccttaacggt gtctatgtgt tgatatatat cacaagtgcc gtctatcgcc tccttcgggtt 60  
cctgggggttc cgagagtttg tggaaaccca gacctcctgg ccagatgaaa tcaaccacg 120  
gttgaagccc gtgacatttt ccgtatctgc gcagaggatt cgtgagcgat taccagtagt 180  
tcggttcggc gttttagcgg aggaggccgg tgatgaggat gttatgtgcg ctgtttgctt 240  
aaataacatg cagaggcatg aggagatccg aaggctaacg aattgccgtc acatcttcca 300  
cagagactgt atggacaaat gggttgatca tgaccagaac gcctgtcctc tctgca 356

<210> 1596  
<211> 378  
<212> DNA  
<213> Pinus radiata

<400> 1596  
gtcaacgaga attgccacga tgggttaaat tggatttagg tctgggaagc tttaggataa 60  
gttaatgtac cgaagtgtgg ttaatttttag taaagaggat tgtgttttat catgcggatc 120  
cagtgcgatg cctgcgagca ggcagctgct tcagtgatat gttgtgcaga cnaggctgct 180  
ttgtgcaggg agtgtgatat aaaagtccac aaggccaaca agcttgccag caaacacaag 240  
agattgcctc ttgtcggaaac ttccccaaag ctctctcgct gcgacatttg ccaggatagg 300  
gcagccatcg ttttctgtct cgaagatcgt gctatgctgt gccaaagactg cgatgagtcc 360  
gttcattctc gcgacaca 378

<210> 1597  
<211> 387  
<212> DNA  
<213> Pinus radiata

<400> 1597  
tcgataatag cagggagagt ccccgccga acagacaacg aaataaagaa ctactggaac 60  
actaacttga gcaagaaact tgctgtcagg ggaatcgatc ccaagactca taaaaaatc 120  
acgacggacg gcacgaacag agtcaacggg gatcgtttca gccagaggaa aggtgagaaa 180  
atatatgatt ctccacagaa acctcgacag ccgaaagaa atgttgcgag ggccgcccga 240  
tcaacagggc tcgtgatttc taatgttcac aatctaaaag cggattttaa agcgcaatat 300  
attgcaagaa tcagagaatt taaaagctct aatactatca gctcctcttc tcgacttaat 360  
gcacagattg agccaaagtc cagagag 387

<210> 1598  
<211> 276  
<212> DNA  
<213> Pinus radiata

<400> 1598  
 ggtttgtcag atttgggtgac gagaatgaga aaaaccgagc catgactgaa atgaatgggtg 60  
 tttattgtct ttcaagacct atgcgaatta atgaagctac accaaagaag tccttgggat 120  
 ttcaacaacc ttattccatg aaaggtaact attacacaca ggcatatggg ggtgcagttg 180  
 ctagtcaggc cttccagtca gacaatgatc caaataatac aactatattt gttgggtgggt 240  
 tagatccaaa tgcgacagat gaagatctga ggcagg 276

<210> 1599  
 <211> 374  
 <212> DNA  
 <213> Pinus radiata

<400> 1599  
 cacatcttga gcgaataaaaa aatctacgtg atgggtggagc tgggtgctgaa gacagcgacn 60  
 aaaaggatga agactttgtt gcagaaaacg atgatgctgg atctccaaca gatgagtcag 120  
 aagaagaggg atcagatgca agtgagagtg cagagggtcaa gcaacctgca aagaagaag 180  
 taaagaaaaa aaaggcgggtg gctcccaagg caaccgagac caagaagaag aagaaggacg 240  
 acgaggaaga gggaggaaaag aaaaagcagc ggcgaaagaa gaaggatcca aatgcgcca 300  
 agaaagccat gactggattt atgttctttt ctcaagttga aagagagaat ctgaaaaaga 360  
 gtgacccaag aatg 374

<210> 1600  
 <211> 334  
 <212> DNA  
 <213> Pinus radiata

<400> 1600  
 gatctgtgtt gctgtttgat tccgcaagct tggggagatc aggatctgct ctttgttgta 60  
 aatgtcgata ttacccaaat cagattccat tcatattagg gaagtatggg ccgataatct 120  
 ggaagaggag tttaatctga tcagggaat tgttgatgac taccctctga tagccatgga 180  
 cacagagttc cctggcatag ttgtgcgacc cgtgggcaaa ttcaggaccg tccaagaata 240  
 caattatgaa accctaaggt caaatgtaga cgtattgaaa ttaatacaat tggggctgac 300  
 gttttctgat gaaacggcaa cctcccaaac tgcg 334

<210> 1601  
 <211> 401  
 <212> DNA  
 <213> Pinus radiata

<400> 1601  
 gttaggccag ctcttagttc gagtccgggc cgctgctctt aatcctgccg actttaagag 60  
 acggaaaggc ttattaagaa acgcggatcc cgattttccg actgtgccag gctgtgatat 120  
 gtcaggagtg gtggtggaaa ttggtgatgg tgtctccaag ttcaaggccg gtgacgagat 180  
 atacagcaac atccagaatt tcgcagcagg gaggccaaag cagtgcggga ctctcgccca 240  
 gtacacagtg gtggaggaat tcctggtagc gccgaagccc agtaatttat catttgagga 300  
 agccgcgagc ctgccgcttg cgcttcagac tgcgcagcag ggcttcgata caaccaattt 360  
 tgaaaagggg cagagcgtgt tcgttgtggg aggctcggnc g 401

<210> 1602  
 <211> 462  
 <212> DNA  
 <213> Pinus radiata

<400> 1602  
 ggtttgtcag atttgggtgac gagaatgaga aaaaccgagc catgactgaa atgaatgggtg 60  
 tttattgtct ttcaagacct atgcgaatta atgaagctac accaaagaag tccttgggat 120  
 ttcaacaacc ttattccatg aaaggtaact attacacaca ggcatatggg ggtgcagttg 180

ctagtcaggc	cttccagtc	gacaatgatc	caaataatac	aactatattt	gttgggtgggt	240
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tgtatgtgaa	aataccagtg	ggcaaaggat	gtgggtttgt	acaattcacc	aacaggtcct	360
ctgccgagga	agctttgcaa	agttacacgg	cactgttatt	ggtcaacaat	ctattcgcct	420
ttcttggggg	cgatctccag	caaacaagca	gactgcaagc	tg		462

<210> 1603  
 <211> 358  
 <212> DNA  
 <213> Pinus radiata

<400> 1603						
cagcgaagcc	gatttccaaa	gatggatagg	gagaaactca	tgaagatggc	tggtgcagtc	60
cgactggcg	gaaagggtac	aatgcgaagg	aaaaagaaga	caattcataa	gactgccacg	120
gcagatgaca	agagacttca	aagtaccttg	aaaagaatag	gcgtgaataa	catccctgtc	180
attgaagaag	tcaatatttt	taaggatgac	catgttattc	attttgctaa	cccaaaggtc	240
caggcttcta	ttgctgccaa	cacatgggtg	gttagtgggg	catcgcaaac	aaaaaaactt	300
caagatcttt	tccctgggtat	catcaatcag	cttgaccag	agagttttgc	caatctga	358

<210> 1604  
 <211> 358  
 <212> DNA  
 <213> Pinus radiata

<400> 1604						
accaagctca	tcacatggcg	tccgagaagg	aagctgctct	tgctgccaca	ccaccagaag	60
atgataaacc	tacaatattt	gacaaaatac	tgcagaagga	gattcccagt	acagtgggtt	120
acgaggatga	gaaggctact	gcattcaggg	atatcgacac	ccaagcacct	actcacatca	180
ttatcatccc	caaagtaagg	gatggcttga	ctggcctatc	taaggcagaa	gagaggcatg	240
aggatattct	aggtcacctg	ctatacactg	caaaagttat	tgcaaagcag	gaaggtttat	300
ctgatggctt	cagaattgtc	attaacgatg	gtcctactgg	atgccaatct	gtgtacca	358

<210> 1605  
 <211> 461  
 <212> DNA  
 <213> Pinus radiata

<400> 1605						
gcggacttta	ttgtaaaaaga	gccaatgggtg	attgggtcatg	agtctgctgg	aataattgag	60
gaggttggca	gtgaagtga	acatctgggt	cctgggtgacc	gcgtagcttt	ggagcctgga	120
atatcgtgtt	ggcgttgtga	ccaatgtaag	cgaggctcct	acaattttgtg	tcccagagatg	180
aagttttttg	caacacctcc	cgtgcatggg	tccttggcca	atcagattgt	tcatcctgca	240
gattttatgtt	tcaagttgcc	agataatgta	agtctcgagg	aagggtgcat	gtgtgaacca	300
ctcagtgttg	gggttcctgc	ttgtcgcctg	gcttctgtag	gtcctgagac	aaatgtcttg	360
gtaatggggc	aggtcctatc	ggccttgtca	ccgtgctgtc	tgcacgtgca	tttgagctt	420
cacgaattat	tattgctgat	gtagatgaag	agcgtctgtc	a		461

<210> 1606  
 <211> 463  
 <212> DNA  
 <213> Pinus radiata

<400> 1606						
gccactgttt	gtatgtgatc	tccgggcctt	gagcttatac	gtttttcagt	tgcagggttg	60
gagcctgtca	aattatactt	accatgattt	ggaaagaagc	tgcgacagtg	ctacacaagg	120
cccaacatct	ggagaagcca	cccttcatct	ttactgtatt	tatcgcatct	tttataggat	180
tcgcccctt	ctcgtatctc	atcactaacc	gtagaactag	ggaattacga	ggaatcccgc	240

ccggcacctt	tggatggcct	ttgatcggcg	agacattaga	atttctggga	tgccagagaa	300
ggggaaggcc	ccaggatttc	tgtgaccgtc	gaacacagaa	gtatggaaac	gtgttcacca	360
cttcccttgt	gggcacccga	cagtgggtatt	atgtagtccc	caaggcaacc	gcttcttgtt	420
cgccaacgag	aacaaactgg	tggttaaattc	atggcccgc	tct		463

<210> 1607  
 <211> 410  
 <212> DNA  
 <213> Pinus radiata

<400> 1607						
tcctgacttt	gctaattgaga	cattcggccc	aagcttagtc	gttggttatcg	ctgccctgtt	60
cctctcaatg	ctatgctttt	tggtgttcaa	tgccctgctc	cgctgcagac	ggctctacag	120
gcgatggcga	gtggtgtcgg	agccatcacc	caatatggat	gtcgaaagaa	ctgaatctgg	180
catcgagaaa	aaggatttag	aagcactttc	agccacagtt	taccgcaaag	cccacccctt	240
cagagccatg	gattgcccga	tttgccctggc	ggaattcaaa	gaaggagaaa	aggtgagagt	300
attaccagaa	tgctgtcact	gtttccatgc	agattgcata	gacgcattggc	tgctttccaa	360
tgcttcttgt	ccttcatgtc	gacacactgt	cctttgcgca	ttgccgaaga		410

<210> 1608  
 <211> 357  
 <212> DNA  
 <213> Pinus radiata

<400> 1608						
taataattgg	gtactgtgga	gattttcctg	tgcattgacc	attacaatgg	ctgagacagt	60
ggttttgaag	gttggcatgt	cttgcggaagg	ttgtgttgga	gctgtaaaac	gagttctcaa	120
taaaatggaa	ggtgtggaaa	catatgatgt	gaacttgaag	gagcaaaaag	taactgtgaa	180
agggaacgtg	aagcctgatg	ccgttctgca	aactgtttca	aaaactggaa	aggaaacatc	240
cttctggcca	gaagagaagg	atgccaccac	gtgatgggtgc	atattctcag	gtttaatata	300
gatatggaca	tatattgaac	atgctttttt	gaggcacttt	taataatatt	tctaata	357

<210> 1609  
 <211> 222  
 <212> DNA  
 <213> Pinus radiata

<400> 1609						
ccaagaacgc	gggaaggaag	aggatgaatt	tgtacagagg	catcagacag	cgtccatggg	60
gaaaatgggc	tgcgagagatt	cgagatccca	gaaagggggt	tagggtttgg	cttggaacgt	120
ttaacacggc	cggaggaagc	tgccagggcc	tatgacgcag	aggcttagaa	gattagagga	180
aagaaagcta	agcttaactt	taccgatgat	tcattgctcag	ta		222

<210> 1610  
 <211> 302  
 <212> DNA  
 <213> Pinus radiata

<400> 1610						
gttcagccta	tggttgtctg	ctaaatcgct	tccacaaatg	tcgatccatc	tgagagagacc	60
tcttataact	gaaatacaag	tgcgtatgga	ctgtaatggc	tgcgttcaga	agatacgcag	120
agctctgcaa	actcttcaag	gcatttatga	cgtttacata	natttcccc	aacaaaaggt	180
gacagtggta	ggatgggttg	atccagacct	attaatgaag	gccataaaga	aagccgggaa	240
aagagccaaa	ctgtgcagcc	acgtacgcga	tgaagaaacg	gtcgagagag	ccgacccggc	300
gg						302

<210> 1611



<211> 268  
 <212> DNA  
 <213> Pinus radiata

<400> 1611  
 gaatgaagtt agatacggca aagaaaggcc ttcctccagg caccatggga tggcctctct 60  
 ttggagaaac tcctgatttt ctcagatatg gtcaacaatt tatcaaaaac agaaaggcca 120  
 gatatggaga tttgttcaag actcacattc taggatgccc gacggtgata tcgacggatc 180  
 cagctctcaa cagatatatc ttattgaatg aaggccgagg actaattcct ggatacccg 240  
 agtctatgct tgacacattg ggaaaatg 268

<210> 1612  
 <211> 312  
 <212> DNA  
 <213> Pinus radiata

<400> 1612  
 gctcactgga ataaacactc ttcgcatcca gcccttcaaa cttccccctct tggcccccat 60  
 gatgcgaagg tgcgcatgaa ggctgtgggt atctgtggca gtgacgtcca ctatttgagg 120  
 acattacggg gtgcggactt tattgtaaaa gagccaatgg tgattgggtca tgagtctgct 180  
 ggaataattg aggaggttgg cagtgaagtg aaacatctgg ttcctgggtga ccgcgtagct 240  
 ttggagcctg gaatatcgtg ttggcgttgt gaccaatgta agcgaggctc ctacaatttg 300  
 tgtcccgaga tg 312

<210> 1613  
 <211> 324  
 <212> DNA  
 <213> Pinus radiata

<400> 1613  
 gctggctaca gcttatgcct tccgattcgt ggggtgaatgg atgaaatggc tatacttgga 60  
 tgtaacaaaa cgtttgggag caaaggattt ctcaacattg gctgaagcac atgcatgtac 120  
 tgctgggtta aagtcattga caacatcagt gactgcggat ggcattgaag attgtcgtaa 180  
 gctttgtggg ggacatgggt acttgtgcag tagtgggctt ccagagctgt ttgctgtata 240  
 tgttcctgcg tgcacatatg aaggagataa cacagttctg cttctacagg tagcaagatt 300  
 cttgatgaag acagtccaac aact 324

<210> 1614  
 <211> 395  
 <212> DNA  
 <213> Pinus radiata

<400> 1614  
 gttcccagga gaggagagcc tcagctgtct cgatctggcg ttaaggggtt acngaagaag 60  
 aatttcgaag atgggttagat cttcttgcta ttcaaagcaa ggtcataggc gtgggatttg 120  
 gaccctatg gaggatatga ttctctctga atacattcga attcatggca gtgatggatg 180  
 gaaaaatatc gctaaacgag caggtcttaa acgatgtgga aagagttgca gattaccgtt 240  
 gggtgaacta tcttcgccc gacattaaac gtggtaacat ttctcctgat gaggaggacc 300  
 tcattattag gttgcatggc cttcttgcca atcgaggac gactaccggg tcgaacagac 360  
 aacgaaatca agaattactg gcacactcat atgag 395

<210> 1615  
 <211> 231  
 <212> DNA  
 <213> Pinus radiata

<400> 1615

ttacattcaa	ccaagctcat	cacatggcgt	ccganaagga	agctgctctt	gctgccacac	60
caccagaaga	tgataaacct	acaatatctt	acnaaatact	gcngaaagag	attcccaatn	120
cagnggttta	caaggatgag	aaggtacttn	cnttcagggg	tatngcnccc	caagcaccta	180
ctcacatcat	tatcatcccc	aaagtaaggg	atggcttgac	tggcctatct	a	231

<210> 1616  
 <211> 396  
 <212> DNA  
 <213> Pinus radiata

<400> 1616						
ccggtccggg	cgggtggagag	catcagcctt	ggagttacag	accaggaaaa	tacaagatgg	60
gtagatctcc	ttgctgctcc	aaagaggggc	tcaaccgcgg	ggcctggacc	aaaagggagg	120
atatgattct	ctccgaatac	gttcgaattc	atggcgatgg	tggatggaga	aatcttccgg	180
aaaaagcagg	tcttaagaga	tgtggaaaaga	gttgacagact	acgctgggtt	aactatcttc	240
gtcccgatat	taaacgcgga	aacatttgcc	ccgccgagga	ggagcttatt	attcggctgc	300
atcgcttct	tggcaatcgg	tggtcactga	tagcaggacg	actgcctggg	cgaacagaca	360
acgaaatcaa	gaactactgg	aactctcatc	ttgagc			396

<210> 1617  
 <211> 296  
 <212> DNA  
 <213> Pinus radiata

<400> 1617						
gtcggcgctg	gcggcggctg	cgaggaaacg	gcggcgctcag	ctgtgaagga	aacgcatttc	60
anaggcgtag	ggaagaggcc	gtgggggaga	ttcgctgcgg	aatcagaga	tccctggaag	120
aagacgagac	tctggctcgg	cacttttgac	acagccgaag	aggccgcccg	cgcctatgat	180
aatgccgcca	gaaatctacg	cggccccaag	gccaaaacca	atttcgctat	ccacgacgat	240
agcggccgcc	ctgttcaaca	gtggcggcgg	acgcgccgtc	cctagtcagc	gacaag	296

<210> 1618  
 <211> 381  
 <212> DNA  
 <213> Pinus radiata

<400> 1618						
gagctttctc	tcaagaacat	tcttacagca	aatgagcaga	ctacaactgc	agaaccacga	60
aataataata	cagttgtttt	cctggaatct	attactaatc	catctgtcag	agttgcggat	120
ttaccgtcta	tttccactgt	atgtaaaaag	tatggagcat	ttcttatagt	agataatata	180
tttgctacac	cgataaggat	caagcccatc	aagcaggggtg	ctgacatggg	cattcattca	240
gtaacgaaat	ttcttggtgg	ccatagtgat	ctggttgtag	gagtagttgc	aggctcttct	300
caccacatag	agtttagcctc	aaagctggta	ggtcgctggg	ggctgcttgc	tgctccattc	360
gattcatggc	ttgccactcg	c				381

<210> 1619  
 <211> 373  
 <212> DNA  
 <213> Pinus radiata

<400> 1619						
cggteccatgt	gacttcgaca	tccatgagtc	ctgcgcccaa	gctcctaacg	ccactctcca	60
ttcctgtcat	ccccagcatc	ctctcgtgtt	gagggacaaa	ccagtttcac	cacaacgcgt	120
atgcgacgtc	tgtggaaggg	atgttttagg	attcgtttat	gactgccgtg	aatgtgacgt	180
ggacgttcat	ccctcctgtg	cacagctgcc	gcagacgctg	cgccacgctc	tgcatccaca	240
ccacaccctt	caactctccc	atggacctga	agctcccgcc	cctcctgcac	gctcctgtaa	300
cgtatgcgga	gaagcctgta	gccctgggca	ctggagctat	cgttgcgaat	tagccagtgc	360

gccgtgtgat ttc

373

<210> 1620

<211> 137

<212> DNA

<213> Pinus radiata

<400> 1620

cacgggttcc	agaccttttg	catcttcatt	attcttccgc	ctgtgaaaag	atggggagat	60
ctcgtgctg	tgagaaggct	catactaaca	aaggggcctg	gactaaacaa	gaagatgacc	120
gccttatcgc	tcacatt					137

<210> 1621

<211> 372

<212> DNA

<213> Pinus radiata

<400> 1621

gttcccagga	gaggagagcc	tcagctgtct	cgatctggcg	ttaaggggtt	acagaagaag	60
aatttcgaag	atgggttagat	cttcttgcta	ttcaaagcaa	ggcatagggc	gtgggatttg	120
gacccctatg	gaggatatga	ttctctctga	atacattcga	attcatggca	gtgatggatg	180
gaaaaaatatc	gctaaacgag	caggtcttaa	acgatgtgga	aagagttgca	gattacgttg	240
gttgaactat	cttcgccccg	acattaaacg	tggtaacatt	tctcctgatg	aggaggacct	300
cattattagg	ttgcatggcc	ttcttgga	tcgcaggacg	actaccgggt	cgaacagaca	360
acgaaatcaa	ag					372

<210> 1622

<211> 464

<212> DNA

<213> Pinus radiata

<400> 1622

ctgaattgca	tttcttagtc	ggcaaaaata	ttaaagagtc	aagacaaaga	gggggttacg	60
ggagcaggct	gcgggttcga	tcccaagata	aggaaaaaag	aaagaaaatt	tcatgaattg	120
ggcctgtaga	ttccagtcac	gaaattaaaa	cctatcggtc	tcgtcttcga	gctaaagttg	180
gggaaaaaagc	taagctctca	gggaatgggt	tccgcacaa	tgctgtcttc	taatgggtggc	240
cggacacctc	agttccaacc	actcgttcgt	cagaattctt	tatacaattt	aacgctggag	300
gaggtccaga	accagctcgg	ggacgccagc	aagccactta	gcagcatgaa	catggacgag	360
ctcctgaaga	acatttgagc	acaagagaaa	gccaggctat	atccatggcg	atcggcaatg	420
ggcccatgaa	cggtgttcct	cccaactctg	ccctgccag	cggc		464

<210> 1623

<211> 436

<212> DNA

<213> Pinus radiata

<400> 1623

aagaaaaatg	ggctgaatag	tctcagggag	ggtttttaaat	tgaatgagta	ggttttttctg	60
gggtgagatt	ctttcatatt	tatgcgtaaa	acgttgactc	caatcggcgt	gaaacaaacc	120
aatagaaatc	ccaaattgat	ttctttcaat	ttcatctgat	acacagagag	aattcagtc	180
gtggaagtca	tgtctaacat	aacgtctgcc	tctggagagg	ccagcgtttc	ttctggcaat	240
acagctgcc	tggtgatag	tgagagcatt	cggcaacagc	caccacaaca	attctcaaca	300
ccaacgtctg	caaattggcg	cggaaatata	aacagtgtc	agcaaaaccc	agagaagaag	360
agaaagagaa	atcttccagg	aactccagac	ccagatgcag	aagtgattgc	tctgtcgcct	420
aggactctca	tggcta					436

<210> 1624

<211> 337  
 <212> DNA  
 <213> Pinus radiata

<400> 1624  
 gccagagctg tggctgttcc cagaagagga tatcatcagc tgtccagttt gtcctaagag 60  
 actacagaag aagaatatag aagatgggta gatccccttg ccccccaaaa gaagcgctta 120  
 accgtggggc ttggacaggc atggaggata cgattctcac cgagtacatt cgagttcatg 180  
 gcagtgggtg ctggaaagat atctccaaaa gagcaggtct taagaggtgt gcaaagagtt 240  
 gcagattgct ttggctgaac tatcttcgtc ccgatattaa acgtggtaac atttctcccg 300  
 aggaagaaga gtcattatt cggttgcac gccttct 337

<210> 1625  
 <211> 421  
 <212> DNA  
 <213> Pinus radiata

<400> 1625  
 ctgaagtgcc gtcgattgtt cgggaggata gcgttttcga agttcgttgt tgagttatct 60  
 cgcgagactg tagaatttta gggttgtttt ccacaaaccg acttttcccg acttcaaact 120  
 ttgatattga agtgacatgg ccggcgagaa aagaaagatt aatagaatag ctaacgcttc 180  
 ggccaggcag gtcaccttcg cgaagaggcg gagggggctg ttcaaaaaag ctcaggagct 240  
 atcgatttta tgcaagccg atgtagccct cctcgttttt tcttcaactg gaaagctgta 300  
 ccagtactcc agctccagca tgaaaatgat attggaccag tatattttgt attctagatc 360  
 aattcaaaaag gatggaaagc caaatctgga ggagagtcac gatatccaaa agataaacca 420  
 c 421

<210> 1626  
 <211> 315  
 <212> DNA  
 <213> Pinus radiata

<400> 1626  
 tgcatttcag ccagtcctat gtttcaaggt cgaatctcct tgctgacatg aatccatcaa 60  
 tatatataga gagagagaaa tatacgtttt tcagatttaa gcatggccgt ttaataatct 120  
 gcattgcatg gcgagattgt atttgtgtta gaagttgatt ttctgttttt tctctttcag 180  
 ttagttagtc caataaagca gagatgggtc gtgctccatg ctgcacaaaa gttggtctca 240  
 acaaggagc atggtctgcc gaagaggata gtcttctggg aagatatatt caaactcatg 300  
 gtgaaggcaa ttgga 315

<210> 1627  
 <211> 373  
 <212> DNA  
 <213> Pinus radiata

<400> 1627  
 cacatccata catgtggggg ggacagccgt tgatgccacc ttatgggact ccactaccat 60  
 atcctgcaat gtatccacat ggaggaatct atgcacatcc ttccatgcct ccgggtgcac 120  
 ttccgtatgg tcactatgga atgccatcac ctggcaatgc tgaagttaca acgactttag 180  
 cacttccaaa tgctgaagca gaagccaagt cctcggaagg caaagagcgg aatacaatga 240  
 agagatcaaa aggaagttta ggaagccttg gaatgattac tggcaaagga ggagaagggtg 300  
 gcaaggcaac atcgggatct gcaaagtagg ccatgtcaca aagtggggac agtggcagtg 360  
 acggttcaag cga 373

<210> 1628  
 <211> 512  
 <212> DNA

<213> Pinus radiata

<400> 1628

cggtaatagc	atagagggat	tatacagagg	tggattgtta	ttgaaaccca	gtagtggagg	60
tagagtcttg	acaagtggg	acaaaggagg	gaattccacg	gatgttatag	atatggatat	120
agggactggg	agactaacag	gttctgaaag	gagacatgac	aaacggaatc	ctacatttac	180
agaccattat	agacattcag	acagtgatcg	aatgaagatg	aacagctact	tatatccaga	240
aaacaacaat	agcacggcgc	ttgttgcgtc	tctgtttgtt	cccaggaacg	acaaacttgt	300
aaagattgat	ggcaacctta	taatccatgc	agttctagct	ggggaaaaag	cctcgagagc	360
attatctgcc	tcacagtcta	gaggcaacaa	agatgggcat	gtagacacca	tttcacttca	420
aaaggaatat	gaaaagaata	gtttggcagt	cagaacagaa	aggcatcgtg	ctcttgctgc	480
tgctgccgcc	gccactacag	attcagccag	aa			512

<210> 1629

<211> 395

<212> DNA

<213> Pinus radiata

<400> 1629

gagaaaacgg	acctgaccat	atcgaaacat	tcacaggggg	agattgatca	aacacaaata	60
ccgtaaaatc	gcagcgaaaa	tccaaaattc	caccatgggg	actgtggcgg	aggatggcag	120
caagggttac	aaggccgtaa	atccccatcc	caaaaagggc	gtcgcctcgt	ggctgggtgga	180
catggtggag	aaactgggtg	ttgaaacttc	tgcgttgtat	agttcgaaga	agcctctgca	240
ttttcttttg	gggaacttcg	ctccagtcctc	ggaaactgcc	cccaaatacgc	acctgcctgt	300
tgttgggcaa	cttcctagtt	gcttggtatg	agagttcgtg	cgcgttggtc	ccaatccgaa	360
attcgcaccg	gtagctggct	atcactgggt	tgatg			395

<210> 1630

<211> 285

<212> DNA

<213> Pinus radiata

<400> 1630

ctctgcattt	tcttttgggg	aacttcgctc	cagtctcgga	aactgcccc	aaatcgcacc	60
tgctgttgt	tgggcaactt	cctagtgtgt	tggatggaga	gttcgtgcgc	gttgggtccca	120
atccgaaatt	cgcaccggta	gctggctatc	actggtttga	tggagatgga	atgatccatg	180
gtctcagaat	taaagatggt	aaagccacat	atgtgtcacg	ttatgtgaag	acatcacgct	240
tgaacaaga	ggaatacttt	gggaaagcaa	aattctttaa	gattg		285

<210> 1631

<211> 438

<212> DNA

<213> Pinus radiata

<400> 1631

gtttttcaaa	gctcaggttt	aacagaaaat	acccgggaaa	attaacaaga	aaaaaggaaa	60
aacagagatt	ttgtttattt	ctgttattag	tctgctaaat	tggtttttga	taattttaatt	120
aattaaggcg	ggggcccgca	cctccaggca	gtggcggaga	ccagtgggcg	gccctgccac	180
ccgaggagga	gagccgcgtg	cgctttctcg	acttcgaacc	cgcggtatg	gaggcgctgg	240
atcaggtact	ctgcctgcgt	ctcgggtgaag	ttgctgaagg	ccactgggga	gaagccggcg	300
gcggcgaaac	gggtcttcca	tggcggagcc	ggcggcggag	gaaatgggtg	cgtcgatctt	360
cggagctagc	aggaacttct	cgatcttgtg	cacggcctcc	atgttgatgt	tcacggcatc	420
cagtgaatcg	aacaggaa					438

<210> 1632

<211> 457

<212> DNA

<213> Pinus radiata

<400> 1632

ccatattcgaa	acattcacag	ggggagattg	atcaaacaca	aataccgtaa	aatcgagcg	60
aaaatccaaa	attccacat	ggggactgtg	gcggaggatg	gcagcaagg	ttacaaggcc	120
gtaaatcccc	atcccaaaaa	gggcgtcgcc	tcgtggctgg	tggacatgg	ggagaaactg	180
gtggttgaaa	cttctgctgt	gtatagttcg	aagaagcctc	tgcattttct	tttggggaac	240
ttcgctccag	tctcgaaaac	tgcccccaaa	tcgcacctgc	ctgttggttg	gcaacttcct	300
agttgcttgg	atggagagtt	cgtgcgcgtt	ggccccaatc	cgaaattcgc	accggtagct	360
ggctatcact	ggtttgatgg	agatggaatg	atccatggtc	tcagaattaa	agatggtaaa	420
gccacatatg	tgtcacgtta	tgtgaagaca	tcacgct			457

<210> 1633

<211> 318

<212> DNA

<213> Pinus radiata

<400> 1633

aattgttgat	aatcagattc	cattgagtgg	acctgattca	gttattggta	gggcacttgt	60
tgtccatgag	ttagaggatg	acctggggaa	aggtgggcat	gaacttagtc	tgacaactgg	120
caatgctggg	ggcaggttgg	cttggtgtgt	ggttggactc	actcccattt	aaggcccagt	180
caaatatgga	atgatcttca	aagggtcatg	acatcgtatg	aaaccagtga	ctgcaataat	240
aattccaaaa	tatatgttct	ttatcctcgc	aagattgtta	gcaattgtga	tttgtttttg	300
gtattaacga	gttgact					318

<210> 1634

<211> 211

<212> DNA

<213> Pinus radiata

<400> 1634

gccgtggctg	ttcccaggag	aggagagcct	cagctgtctc	gatctggcgt	taaggggtta	60
cagaagaaga	atttcgaaga	tggttagatc	ttcttgctat	tcaaagcaag	gtcataggcg	120
tgggatttgg	accctatgg	aggatatgat	tctctctgaa	tacattcgaa	ttcatggcag	180
tgatggatgg	aaaaatatcg	cttaacgagc	a			211

<210> 1635

<211> 350

<212> DNA

<213> Pinus radiata

<400> 1635

ggtttcttta	tatttatgtg	cagattgcct	ggacggacac	ttgccaatgg	acgtctcata	60
tggctgtgcc	aggccaacga	agcggacagc	aaagtcttcc	cacgtgctct	tcttgctaag	120
agcgctctta	ttcagactgt	tgtatgcac	cctctcgcg	acggtgtctt	ggagtttggg	180
actactgaag	tggagcgaga	agaccctgg	ctagtccaac	gcaccataag	cttttttttg	240
gagtaccca	aaccgatatg	ttcagagcaa	tctacatcca	gccacagtg	ctcagacaga	300
gacgaaaagg	atcaagtggg	catggtcaca	ataatgtcct	ccgacagcat		350

<210> 1636

<211> 356

<212> DNA

<213> Pinus radiata

<400> 1636

ggttgctgga	ttccaacgga	aaggatttgc	ctctttcatc	agtctataat	cgaggatctc	60
tgcagtcctt	tactagtga	ggtcattccg	tttcaacagt	aatcctccgt	attgaaaagg	120

aggaagaaga	gtttgtcttt	gttgacattc	ctgaaagacc	aattccctct	ctactacgca	180
attatagtgc	tcctgtgcgt	cttgtttcag	atatcactga	tgatgatttg	tactttctac	240
ttgcacatga	ttcagatgag	tttaaccggg	gggaggctgg	ccagacattg	gcaagaaaac	300
tcattgctctc	tctcgtagat	aaggcgcaac	agaatcaacc	attgagtgtg	gaccca	356

<210> 1637

<211> 362

<212> DNA

<213> Pinus radiata

<400> 1637

cgaggctccg	ttcaaccctt	ttcatcttca	atcggttccaa	ggcctcttcg	gtctgcctgg	60
gtgcgtttct	gaatttctcg	ccaagtgagt	gagtcgatcc	agccttggtt	cagcgaaacc	120
tggtgtggtt	ttgggttttc	ttggcttttg	ccttttcatt	ctttgtttcc	ttggattcga	180
actcgagatc	tcctgaatat	tatggcacag	gagagctgga	accaggagga	gaccgggtgc	240
caagtcccg	aagggtctcat	gcgctgtgcc	aacaactgtg	gcttcttcgg	aagtccggcc	300
accatgagtc	tctgctccaa	gtgttaccgc	gaattcgtgc	tgctcaactc	ccctaaatcg	360
tc						362

<210> 1638

<211> 359

<212> DNA

<213> Pinus radiata

<400> 1638

cgaaactcga	atcgatatgc	tttgtggccg	gttcaaatat	ttgagctggc	ttagcttctc	60
tggttcagaa	atggcggact	aaagtaatat	tgtgccccga	ggtctgggtg	tcgaatctcg	120
ttggcgtgaa	aggtcaaatt	tttctctcga	gtttcattga	ttctgaaaaa	ctggcatagc	180
tatggcgatg	agcaatggga	gatttgtgtga	agatttggtg	aggattaagg	ggcgtggag	240
ccccgaggag	gacgcgtcgc	tgagagggtc	tggtcagaaa	tacggggccga	ggaactggac	300
cctgataagt	aaaggaatcc	cggggcgatc	cgggaaatcg	tgagggtac	ggtgggtgca	359

<210> 1639

<211> 299

<212> DNA

<213> Pinus radiata

<400> 1639

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tgccacggca	gatgacaaga	gacttcaaag	taccttgaaa	agaataggcg	tgaataacat	180
ccctgctatt	gaagaagtca	atatttttaa	ggatgaccat	gttattcatt	ttgctaacc	240
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<210> 1640

<211> 300

<212> DNA

<213> Pinus radiata

<400> 1640

gaaactatga	accgcgcata	aaatcgaagg	cgaggagtgc	tagaagaggc	ggtgaagttg	60
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cggcagcggc	ggagacgtcg	gtggaggaag	gaggagaatt	gaataagatc	gaaagcccta	180
caccatcacc	aagtccagag	aaagctggac	tgagcaggag	cacaacaaat	ttctgcgaag	240
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<210> 1641

<211> 311  
 <212> DNA  
 <213> Pinus radiata

<400> 1641  
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 agcaaagaag aagacgtgag cgcggctgtg gatctggcta tggataagta tgggtcaactc 180  
 gacattatgt ataacaacgc tggaaactaac gacagctttc tggatgaagag cgtggcagag 240  
 tatgatattg agcaattcga tcgagtgatg aacgtaaacc tgaaaggagt gatgcacggc 300  
 attaagcacg c 311

<210> 1642  
 <211> 350  
 <212> DNA  
 <213> Pinus radiata

<400> 1642  
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 agctgcacga aagatcagag gtaagaaggc gaaagtaaat tttgttgatg agccaccacc 180  
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 aaaatcatat ctaccccaaa gcctgacttt ttcgaagggt tcaaaacggc gaacccttcg 300  
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<210> 1643  
 <211> 322  
 <212> DNA  
 <213> Pinus radiata

<400> 1643  
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 gttcgccggc acaaccacga agtgcaaggc atgtgaaaag acggtctatt tggttgatca 180  
 attgacagct gataattctg tttttcacia atcctgtttc cgctgccatc actgcaatgg 240  
 aacttttaaag cttagcaact attcgtcgtt tgaggagggt ctatattgca aacctcattt 300  
 tgaccagctg ttttaagagaa ca 322

<210> 1644  
 <211> 345  
 <212> DNA  
 <213> Pinus radiata

<400> 1644  
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 tctggttcag aaatggcgga ctaaagtaat agtgtgcccc gaggtctggt gttcgaatct 120  
 cgttggcgtg aaaggcctaa tttttctctc gagtttcatt gattctgaaa aactggcata 180  
 gctatggcga tgagcaatgg gagatttgtt gaagatttgg ataggattaa ggggccgtgg 240  
 agccccgagg ggacgcgtcg ctgcagaggc ttgttcagaa atacgggccg aggaactgga 300  
 ccctgataag taaagggaatc ccggggcgat ccgggaaatc gtgca 345

<210> 1645  
 <211> 508  
 <212> DNA  
 <213> Pinus radiata

<400> 1645



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gaaaaatggaa	ataatgatga	tcaaggcaaaa	ggtattacag	agggccatcc	tcatcccaag	180
aaaggcatcc	tttcatcggg	aattgatttg	gccgagaaaa	tcgtgggttcg	ctcgcctctac	240
ggctccgcca	aacctctgca	ctacctcgct	ggtaatttcg	caccggtcga	acaagaaact	300
ccgccgcaca	cagacttgct	cgtcattgga	aatctccccta	aatgcttgga	tggagaattt	360
gtgcgagtcg	gtcccaatcc	cagattttgc	ccccgtcgct	ggctatcatt	ggttcgacgg	420
agaccggaat	gctcatgggt	tgaggattaa	agatggcaaa	gcagcttatg	tttcgcgttt	480
ccgtcaaaac	ttcacgtctc	aagcaaga				508

<210> 1646  
 <211> 368  
 <212> DNA  
 <213> Pinus radiata

<400> 1646						
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gggcctggac	caaaagggag	gatatgattc	tctccgaata	cattcgaatt	catggcgatt	180
gcggatggag	aaatatgccc	aaaagagcag	gtcttaaacg	gtgtggaaag	agctgcacga	240
ttacgatggc	tgaactatct	tcgccccgac	attaaacgtg	gaaacatttc	ccctgatgag	300
gaggaactca	taattcgggt	ccatcgccct	cttggcaatc	gatggtcgct	tatagcattg	360
aagattac						368

<210> 1647  
 <211> 367  
 <212> DNA  
 <213> Pinus radiata

<400> 1647						
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gattctccct	gttctttgtt	ctgttgcggt	aaagattggg	tgcaggtcga	atcgcccagg	120
ccgatttgaa	ttctcctgag	gattgacaag	atgacgcgca	agtgcctcga	ctgtggcaac	180
aacgggcata	actccaggac	gtgccctaac	cgcggcgggg	tgaagctctt	cggcgttcgg	240
cttaccgatg	gcccgatcag	aaagagcgct	agtatgggga	atttgatgat	gatgtccaac	300
cctagctctc	ccgctgacct	ctccnagccg	gcctctgccg	cttctgctgc	cgcggcggcg	360
gcggcca						367

<210> 1648  
 <211> 511  
 <212> DNA  
 <213> Pinus radiata

<400> 1648						
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ggggcctgga	ccaaaaggga	ggatatgatt	ctctccgaat	acattcgaat	tcatggcgat	180
ggcgatgga	gaaatatgcc	caaaagagca	ggtcttaaac	ggtgtggaaa	gagctgcaga	240
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gaggaactca	taattcgggt	ccatcgccct	cttggcaatc	gatggtcgct	tatagcagga	360
agattaccag	gtcgaacaga	caacgaaatc	aagaactact	ggaacactca	tatgagcaag	420
aagctgcttc	cattgaacga	atctcaaccc	aagactttgc	ctgtcccca	gaggaggtcg	480
caatctcctt	ctcccctgca	aaatcgagtc	t			511

<210> 1649  
 <211> 364  
 <212> DNA

<213> Pinus radiata

<400> 1649

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cagctgcaat	ccatgtaact	gttcaaagat	tgacgagact	gttagtggga	aatccttctg	120
taaatgtgga	gagaattgcg	cctgtgaaac	atgcacctgc	agcagagctg	gaatatagcc	180
tagttgattg	tttttctcag	ccagaactta	ggattccatg	accactagta	ataagatgca	240
gtatcaatag	cagctgatgt	ttatgtatgc	agtaagttaa	taaaagagag	tggttacttt	300
ttggcttttag	taatttggtg	cttatgttat	gtatgtagta	agtttatctc	caaatacaga	360
gccg						364

<210> 1650

<211> 354

<212> DNA

<213> Pinus radiata

<400> 1650

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tctcctctcc	tgcatttctc	aaactcaa	acctctcctc	tcacatcatg	gaaggcggag	120
tcgtctttga	atctgtgcaa	aaccactgg	atcgctgaa	caactggaaat	atggaccatg	180
gttggtgcca	ttacaggaga	cgatgtcgga	ttcggggccc	ttgttgcaat	gagatctatg	240
attgtaggca	ctgtcacaat	gaagccatga	gccatctaaa	ggaccccttg	ctgcgccatg	300
agctcccaag	atacaaagtt	gaacggggtta	tttgttctct	ctgtgacact	gagc	354

<210> 1651

<211> 424

<212> DNA

<213> Pinus radiata

<400> 1651

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tcactacaag	ccttttagcaa	gcctcacaaa	taagctttgc	agtaggatgt	ctcctcccc	120
gtcatattcc	atgtttccca	attcaggaat	gggcttaaat	ccctcagtga	catcttcaga	180
accctctagt	caggctctcg	gategatccc	ccatcaatat	tcaggctccg	aggaagaccc	240
taaactgacg	atcgatgaaa	gaaagcagaa	gagaatgctt	tctaacagag	aatctgcaag	300
gagggtccagg	atgagaaagc	aacagcattt	ggatgaattg	agagcccgaa	cagctcatct	360
cagagcagag	aacagtcata	tgctaacaaa	attcaacatt	gcttcacaga	aatacatgca	420
gctg						424

<210> 1652

<211> 422

<212> DNA

<213> Pinus radiata

<400> 1652

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tcaaacaaag	cagcctcgag	cagcaccacc	ttgaacacca	agaagcttga	tgatgagaca	120
gaagttctcg	ctcatgaaag	agtttcatca	gatttgaaaga	aaaacataat	gcaagcccg	180
ttagataaaa	agttgacaca	agcccagctt	gcacagcaaa	tcaatgaaaa	acctcagatt	240
attcaagagt	accgagtccg	ggaaagcaat	tcccaatcag	cagatcattg	ccaagctgga	300
aagggtcctt	ggtgtgaaac	tgcgtggaag	cactggaagt	ggaaagaaat	aactggaagt	360
atgcaatagc	aataacatgt	catagagtgt	tgtgatttgg	cgttcaccac	ccacacctgc	420
tt						422

<210> 1653

<211> 357

<212> DNA

<213> Pinus radiata

<400> 1653

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cattaaacgt	ggtaacattt	ctcctgatga	ggaggacctc	attattaggt	tgcatggcct	300
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<210> 1654

<211> 306

<212> DNA

<213> Pinus radiata

<400> 1654

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gtgatgtcag	caaagaagaa	gacgtgagcg	cggctgtgga	tctggctatg	gataagtatg	180
gtcaactcga	cattatgtat	aacaacgctg	gaactaacga	cagctttctg	gtgaagagcg	240
tggcagagta	tgatatggag	caattcgatc	gagtgatgaa	cgtaaactgt	aaaggagtga	300
tgacacg						306

<210> 1655

<211> 368

<212> DNA

<213> Pinus radiata

<400> 1655

cttcagtttg	ccattgaaga	ccaataaata	attattgtga	agcagcagcg	ttttaatcag	60
agatccagca	agaagaggac	caggaaaaat	catttgcaga	acaagaagat	aatccaagat	120
gtcaagcaca	cgagccctc	agtgtgggtg	cggagaaact	tgcgcttgcg	ccgattgcaa	180
gtgtggagtt	gtgagtattg	cgctccatc	cgaccaaaca	agtgggggac	atgcatattg	240
caagtgtgga	gaacactgca	gctgcaatcc	atgtaactgt	tcaaagattg	acgagactgt	300
tagtgggaaa	tccttctgta	aatgtggaga	gaattgcgcc	tgtgaaacat	gcacctgcag	360
cagagctg						368

<210> 1656

<211> 333

<212> DNA

<213> Pinus radiata

<400> 1656

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agtaagctat	agattgatag	ttcagagaaa	agactgaaag	gcaaaaacta	tatagacata	120
acaacggaga	gagcagcaca	ggaaccaggt	tgcataatgg	ctaggcctca	aagatacaga	180
ggagtccgtc	agaggcactg	gggatcatgg	gtctctgaaa	tccgccatcc	cttattgaag	240
accagaatat	ggctaggaac	atgtgaaaca	gcagaggatg	cagcacgagc	atatgatgaa	300
gctgcaagga	tgatgtgtgg	gccgagagct	aga			333

<210> 1657

<211> 355

<212> DNA

<213> Pinus radiata

<400> 1657

gttccccgtc	tcttccgtct	gctaggcatt	tctctgcgat	tcttcttctt	ctgctcgggg	60
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tctctctggt	gaaatcgccc	ccgcaggagg	agggctgagg	gcagggctcg	gctcggctcg	120
gttcgttttcg	gcaggagtta	tctcagggtt	tttctcttga	ttttctgcgc	cttcggactc	180
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aagggagtgg	gagacaagtg	ccggaagggc	ccattcactg	tttgaacaac	tgcggttct	300
tcgggagcgc	ggccaccatg	aacttggtgct	ccaagtgtcta	cagagagctt	aacgc	355

<210> 1658  
 <211> 341  
 <212> DNA  
 <213> Pinus radiata

<400> 1658						
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ggttcagtc	atcgagggtt	acagcgattc	gaaggcctga	aaaccctaaa	aatacctatc	180
cccctttgtc	tttgaatggc	ggagaactat	ggcagcccgg	atagcagccc	ccggtcggag	240
aacgaatccg	gcggcggtca	catgggcggc	agcgatttct	ctgtgaaaga	gcaggatcgg	300
ttcctgccta	tagccaacgt	ggggcgcata	atgaagaagg	c		341

<210> 1659  
 <211> 353  
 <212> DNA  
 <213> Pinus radiata

<400> 1659						
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gcatatttct	gtggaggctt	tgaaggagac	tgatattggt	agacaagtga	atggactgcg	180
aaaacattct	tctgctgaca	ttcgaaagct	agtaaaagag	ctcataagga	agtggaaaga	240
tcttgctgat	gagtgggtaa	gcactgcaga	tgaagtgtga	gctgctgcaa	ttgttgatgg	300
agattctcca	caaggtggtg	gcagcagaat	ttctcaacag	agtattgtgc	aga	353

<210> 1660  
 <211> 317  
 <212> DNA  
 <213> Pinus radiata

<400> 1660						
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gtcgtctttg	aatctgtgca	aaaccactcg	gatcgcttga	acactggaaa	tatggaccat	180
ggttgtgccc	attacaggag	acgatgtcgg	attcgggccc	cttggtgcaa	tgagatctat	240
gattgtaggc	actgtcacia	tgaagccatg	agccatctaa	aggacccctt	gctgcgccat	300
gagctcccaa	gatacaa					317

<210> 1661  
 <211> 340  
 <212> DNA  
 <213> Pinus radiata

<400> 1661						
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gccactatcc	gtttcagtc	gagttcaagg	ggctcgtggt	tcgaatccc	cagagggcat	120
tttcttctgc	gcctgcagcc	cgggcgctga	ccgtcgtcgc	agaggccaag	aaggccgttg	180
ccgtgctcaa	aggggaattca	caggtcgagg	gtgttgctag	tctctcgcag	gaagacagcg	240
gtcccacaac	agtgaaggct	cgtttgacag	gactgactcc	tggaagcat	ggctttcatc	300
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<210> 1662  
 <211> 563  
 <212> DNA  
 <213> Pinus radiata

<400> 1662

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gtaggcctgg	ttatacaaga	tttcgaagca	aactctcgga	gcctcgaaga	atcggcgcaa	120
atttcaacgg	ccttataact	atttggaag	cagtactctg	gatttttctc	ccggaacgga	180
tcggagtgtg	cgaagcgtaa	taatcgccctg	gaatttgtct	tctgcaagat	aatattcaat	240
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tttctccggg	attaaaggat	ggatcaagaa	aactggaaca	tcggagctga	tggcactggc	360
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caacgagaaa	cctgtgttcg	aaatgttaca	gggatctgat	tatgaaggag	gcccaagcct	480
catctgcaat	ggcgcgcgtt	gagaagtcac	ttgccgcggg	ttctccgatg	gaggaggagg	540
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<210> 1663  
 <211> 572  
 <212> DNA  
 <213> Pinus radiata

<400> 1663

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atggccacta	tccgtttcag	tccgagttca	aggggtccgt	ggttcgaatc	ccgcagaggg	120
cattttccct	cgcgcctgca	gcccggggcg	tgacagtcgt	cgcagaggcc	aagaaggccg	180
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caaaaaaatt	gacacatggt	gctcctgagg	acgatgtacg	ccatgcgggt	gacctgggaa	420
acatagtgtc	gggttctgat	ggagttgcag	aggcaacaat	tgttgataat	cagattccat	480
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<210> 1664  
 <211> 366  
 <212> DNA  
 <213> Pinus radiata

<400> 1664

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gccaacggtg	acagaagcaa	gggagcctgg	accaaggaag	aggatgacag	gcttacccaa	120
tatattcagg	ctcatggaga	aggatgctgg	cgttctctcc	ccaaggccgc	aggtctgctt	180
cgggtgtggaa	aaagttgcag	gctgagatgg	ataaattatc	ttcgccctga	tctgaaacga	240
ggaggttttt	ctgaagatga	agacgatctt	attctcaaac	tgacgcctct	cctcggaat	300
aagtggcttc	tgatagcggg	tcgtttgcct	ggtcgaactg	gccacaaaaa	tcaaaactac	360
tggact						366

<210> 1665  
 <211> 348  
 <212> DNA  
 <213> Pinus radiata

<400> 1665

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tgacgatagg	cgtggaagat	ttaatgacat	aatctgtagg	acatgcaacg	agccagggca	180
taccagtagg	gagtgactg	gaattctcat	ctgccacaac	tgtggtggcc	gtggacatgt	240
tgcatactaa	tgccccctctg	gtcgtgtgat	gctgcgggac	atgcgcaggc	attgatgctg	300
caatttctac	aacaccttga	cttttttagat	tatctgattt	tgacaaat		348

<210> 1666  
 <211> 422  
 <212> DNA  
 <213> Pinus radiata

<400> 1666						
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aagtacggca	aaggcgactg	gagaagtatt	tctagaaact	ttgttgtgtc	aaggacacca	120
acccaagttg	ccagccatgc	tcaaaagtac	tacattcggc	ttggttcgga	taataaaaaac	180
aagagaagat	ccagcatata	tgatatcacc	actgttcatg	gtacagacag	gatgccttct	240
cctttactgc	acgttttctaa	taggcagact	aattccccct	caacacaggc	agaaatgaat	300
cattcacat	gtctgacata	tccatctcag	atttcacgag	gacctcta	aaactctttg	360
ggacctcaaa	tagatggtaa	ccttctattt	tcacctcact	atcctctaaa	tctgtatacc	420
ca						422

<210> 1667  
 <211> 467  
 <212> DNA  
 <213> Pinus radiata

<400> 1667						
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gcaaactctc	ggagcctega	agaatcggcg	caaatttcaa	cggccttata	actatttggg	120
aagcagtact	ctggattttt	ctcccggaac	ggatcggagt	gtgcgaagcg	taataatcgc	180
ctggaatttg	tcttctgcaa	gataatattc	aattaatcta	ttgtcgaagg	aaatttgagc	240
cgtataagag	gataatcaaa	agaagccggg	tgatttctcc	gggattaaaag	gatggatcaa	300
gaaaactgga	acatcggagc	tgatggcact	ggctgccaag	ctccagaagg	gcacactctt	360
tgcgccaata	actgcggctt	ttttggcagt	tcggcaacga	gaaacctgtg	ttcgaaatgt	420
tacagggatc	tgattatgaa	ggaggcccaa	gcctcatctg	caatggc		467

<210> 1668  
 <211> 465  
 <212> DNA  
 <213> Pinus radiata

<400> 1668						
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tgaagatgtg	aatgtgaaag	cccttgctcg	tggtacacct	ggtttcaatg	gtgcagattt	120
ggcaaaccct	gtcaacattg	cggccatcaa	ggcagcagtt	gatggcagtg	agaagttgtc	180
tgccaaacat	ctggaatttg	cgaaggatag	aataatgatg	ggaacagaac	ggaagtcgat	240
gttctatca	gaggagtcga	aaaagctcac	tgcataccat	gagagtggac	atgcagttgt	300
tgcatttaat	actgtaggtg	caaaccctat	acacaaggct	acaatcactc	ctcgagggag	360
tgtctttggg	atggttacac	agctgcctga	caaggatgaa	acatctgtta	ataaaaacga	420
attattagca	cgacttgatg	tttgtatggg	cggacgagtt	gcaga		465

<210> 1669  
 <211> 421  
 <212> DNA  
 <213> Pinus radiata

<400> 1669						
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aagaatggag	agcgacgatt	ggaagggaaa	gttgttatag	taacgggagg	ggcagcgggc	120
ataggagaag	ccattgttca	gctgttcgca	aagcacggag	cgaaagtcac	aatcgacagc	180
gttgacagaga	aagctggcag	aaagcttgca	gaatcccttt	ctccagcatc	ggcaacttat	240
gtgactgtg	atgtcagcaa	agaagaagac	gtgagcggcg	ctgtggatct	ggctatggat	300
aagtatggc	aactcgacat	tatgtataac	aacgctggaa	ctaacgacag	ctttctgggtg	360
aagagcgtgg	cagagtatga	tatggagcaa	ttcgatcgag	tgatgaacgt	aaacgtgaaa	420
g						421

<210> 1670  
 <211> 445  
 <212> DNA  
 <213> Pinus radiata

<400> 1670						
ccatattcgaa	acatttcacag	ggggagattg	atcaaacaca	aataccgtaa	aatcgacgag	60
aaaatccaaa	attccacccat	ggggactgtg	gcggaggatg	gcagcaaggg	ttacaaggcc	120
gtaaatcccc	atcccaaaaa	gggctgcgcc	tcgtggctgg	tggacatggg	ggagaaactg	180
gtgggtgaaa	cttctgcgtt	gtatagtctg	aagaagcctc	tgcattttct	tttggggaac	240
ttcgctccag	tctcggaac	tgccccaaa	tcgcacctgc	ctgttggttg	gcaacttcct	300
agttgcttgg	atggagagtt	cgtgcgcgtt	ggccccaatc	cgaaattcgc	accggtagct	360
ggctatcact	ggtttgatgg	agatggaatg	atccatggct	tcagaattaa	agatggtaaa	420
gccacatatg	tgctacgtta	tgtga				445

<210> 1671  
 <211> 460  
 <212> DNA  
 <213> Pinus radiata

<400> 1671						
cagacttttg	ctccgaactg	ttctgctgaa	acaaaatcca	gtattgagct	aggtttagaa	60
tcgggtttgc	tggtcatctg	ggagaggcga	tccattcagc	ttcgaggcc	cccgaagatg	120
gcgttcgccc	gcacaacca	gaagtgcgaag	gcattgtgaa	agacgggtct	tttgggtgat	180
caattgacag	ctgataattc	tggtttttcac	aaatcctgtt	tcgctgcca	tactgcaat	240
ggaactttta	agcttagcaa	ctattcgtcg	tttgaggagg	ttctatattg	caaactcat	300
tttgaccagc	tgtttaagag	aacaggaagt	ttggataaaa	gttttgaagc	cattcctaga	360
gcattcaagaa	atgacaagat	gcattgagaat	gagaacagga	cacctagtag	ggattcagca	420
ttgtttttccg	gtacacagga	taaatgtgtt	gcattgtggga			460

<210> 1672  
 <211> 301  
 <212> DNA  
 <213> Pinus radiata

<400> 1672						
ttgttggttg	gagacggaga	acattgcttt	gttaaattgg	tcagcgggtt	tgcagctgaa	60
tccgaggctg	ttgcatcctt	aaaagtgttt	tacctttgtg	gtttggacct	tagggtttga	120
actcttttaa	gaaactctca	aaatcagcct	taaacaataa	catacaagat	gtccattcta	180
ccccaaagcg	attccctcat	aataagggaa	gtttgggcag	ataatctgga	ggaggagttt	240
gctttgatcc	gggaaattgt	ggacgattac	ccttatattg	ctatggatac	tgagtttctt	300
g						301

<210> 1673  
 <211> 321  
 <212> DNA  
 <213> Pinus radiata

<400> 1673

aacacaaaata	ccgtaaaaatt	gcagcgaaaa	tccaaaattc	caccatgggg	actgtggcgg	60
aagatggcag	caaggggttac	aaggccgtaa	atccccatcc	caaaaagggc	gtcgcctcgt	120
ggctggtgga	catgggtggag	aaactgggtg	ttgaaacttc	tgcgttgat	agttcgaaga	180
agcctctgca	ttttcttttg	gggaacttcg	ctccagtctc	ggaaactgcc	cccaaatcgc	240
acctgcctgt	tgttggggcaa	cttcctagtt	gcttggtatg	agagtctcgt	cgcgttggtc	300
ccaatccgaa	attcgcaccg	g				321

<210> 1674

<211> 380

<212> DNA

<213> Pinus radiata

<400> 1674

cctgttcgat	atcactgctg	aacctatcag	ttgtccatta	ccttcgcctg	ccttgcctgt	60
attgtcatca	cagtcggcct	ctgatcaaga	agaagccgaa	tcagggtgata	attctgcaaa	120
ttctgcagat	gtagaaactc	ttcttcctca	ggttgatgaa	acagcttctg	ctgatctgac	180
agtgttccca	ggttttggtta	cccccttatgt	accatacggg	ttccccatat	ggcacacttt	240
tagaccaca	ataactcaaa	cttccaatgt	ttataagcca	acagctgtaa	tgccaactgc	300
tccaataaaa	atggacgaat	gcacaggggt	atcccagtta	agcctcggcg	gtgttgccgc	360
ggcttctgca	atgaaaccct					380

<210> 1675

<211> 350

<212> DNA

<213> Pinus radiata

<400> 1675

cccagctgag	gctctctgag	accaaggtga	gattcagcca	gtagtaagct	atagattgat	60
agttcagaga	aaagactgaa	aggcaaaaac	tatatagaca	taacaacgga	gagagcagca	120
caggaaccag	gttgcataat	ggctaggcct	caaagataca	gaggagtccg	tcagaggcac	180
tggggatcat	gggtctctga	aatccgccat	cccttattga	agaccagaat	atggctagga	240
acatttgaaa	cagcagagga	tgcagcacga	gcatatgatg	aagctgcaag	gatgatgtgt	300
gggccgagag	ctagaaccaa	cttcccattc	aatcccatgc	acctccatct		350

<210> 1676

<211> 262

<212> DNA

<213> Pinus radiata

<400> 1676

aagtgcgctt	catatctaac	caataataac	acctgtatag	cttcacagca	acagggcacc	60
atgggcccag	ctcttgctgt	gataaaatgg	gagtaaaaga	aaggcccctg	gactctaacg	120
aagataaaat	actggctcgc	tacattacca	aacatggcca	tggcaactgg	cgtgcactgc	180
ccaagcaagc	agggctcctg	cgatgtggaa	agaagttgtc	gcctgcgggg	gacgaattac	240
ctgaaacccg	acatcaaaag	ag				262

<210> 1677

<211> 357

<212> DNA

<213> Pinus radiata

<400> 1677

cgacaatggc	gcggacggga	ttcgaaaccg	cgacgctcgg	cctcgaacgt	accgaggcgt	60
tcgccgccgg	agctggggga	agtgggtgtc	cgagattcgc	gagcctggga	agagaaagcg	120
catatgggtg	ggatccttcc	aaacggcaga	gatggcggct	cgagcttacg	acgtggctgc	180
gctcagcctg	aagggaagat	ctgctttgcc	caatttcccg	gattccgtcc	acacgctgcc	240
gcgcccctct	tctctgaatc	ccagagatat	ccagcttggc	ggctgcccag	gcagccgcga	300



attaacgcag ccgatggtct ctaccgatat ttcctcctgc aaccgcaaga tcaaaat 357

<210> 1678  
<211> 354  
<212> DNA  
<213> Pinus radiata

<400> 1678  
cacgaggcag tatctaccaa tgtcggggag agacaggaag cttgttgtgc ttggtattcc 60  
ttgggatgtc gacactgaag gtttacagga ttatatgagc aagtttggag aactggatga 120  
tgtgattgtt atgcgggagc gtgcaactgg tcgttctcgt ggatttgggt atgccacatt 180  
ttcttcagtt gaagatgcta agaaagcact tgacagtga catgttctaa atggtcgtac 240  
actggaagta aagggtggta caccgaagga ggagatgaag gtccttcta agaagattac 300  
ccgatattt gnggcaaaaga attccccctt ctgttacaga ggatgcattc cgaa 354

<210> 1679  
<211> 174  
<212> DNA  
<213> Pinus radiata

<400> 1679  
gtccggggcgg tggagagcat cagccttggg gttacagacc aggaaaatac aagatgggta 60  
gatctccttg ctgctccaaa gaggggctca accgcggggc ctggaccaa agggaggata 120  
tgattctctc cgaatacgtt cgaattcatg gcgatggtgt atggaaaaat gttg 174

<210> 1680  
<211> 221  
<212> DNA  
<213> Pinus radiata

<400> 1680  
gttcattaag catggagcca aagtcataat cgcagacgtt gcggagaaaag ttggcaggaa 60  
gcttgaggaa tcactttctc ccgctgtggc aacctacgtg cactgcatg tgagcaaaga 120  
agaagatgtg agcgcggcgg tggatgtggc catggataag tatggccaac tggacattat 180  
gtataacaac gctggaacta atgacagatt tttggtgaag a 221

<210> 1681  
<211> 363  
<212> DNA  
<213> Pinus radiata

<400> 1681  
gcttaggcgc attaaggagc aaaggaaggg aaaatatcac agcgacacag caaaacagag 60  
acagtcacaa gaacaagccc gaaggaaaaa gatgtcccgg gcacaggatg gtatactgaa 120  
gtacatgctg aaaatgatgg aagtttgcaa agcacaaggt tttgtatatg gtatcattcc 180  
tgaaaaaggg aagcctgtaa gtggagcctc ggacaatctt aaagcatggt ggaaggagaa 240  
ggtcagattt gataggaatg gccctgctgc aatcaccaaa tatcaagcag aacatgcaac 300  
acctggagca aatgagagta acatggttgt ggctcctacc cctcactac ttcagggaact 360  
tca 363

<210> 1682  
<211> 374  
<212> DNA  
<213> Pinus radiata

<400> 1682  
ctgatttgaa gtgctcattc atgaacaatc cgagcagcag ttatgcataa aatgttgatt 60

gcagggctcc	gttattgcga	gcaactaaag	ggcgatgggtg	ttacaatcaa	ataticgagaa	120
cgagaatgaa	tctgaagcct	ctcggaatgc	tacaaattgg	taatttggct	cctgttagaa	180
gagcattctc	atcacctaga	gcctcagcag	atgaagaagc	tgctgcaaaa	gcagctgctg	240
ctgtagcaga	gacaggagcc	ccaaccatat	ttgacaagat	cataaagaag	gaaattccag	300
caactattgt	ttatgaggat	gcaaaaagtg	tggcatttgc	agatattaat	ccacaggcac	360
cagtcctatat	attg					374

<210> 1683  
 <211> 407  
 <212> DNA  
 <213> Pinus radiata

<400> 1683						
gccgtggctg	ttcccaggag	aggagagcct	cagctgtctc	gatctggcct	taaggggtta	60
cagaagaaga	atttcgaaga	tgggtagatc	ttcttgctat	tcaaagcaag	gtcatagccg	120
tgggatttgg	acccttatgg	aggatatgat	tctctctgaa	tacattcgaa	ttcatggcag	180
tgatggatgg	aaaaatatcg	ctaaacgagc	aggtaaaatt	ctaatagcaa	tttttattgc	240
aaacgtaata	ctcattgaga	ggttaactaa	gcgggcagtt	tttgttctgc	aggctcttaa	300
cgacgtggaa	agggttgcag	attacgttgg	ttgaactatc	ttcgccccga	cattaaacgt	360
ggtaacattt	ctcctgatga	ggaggacctc	attattaggt	tgcatgg		407

<210> 1684  
 <211> 361  
 <212> DNA  
 <213> Pinus radiata

<400> 1684						
gttccagacc	ttttgcatct	tcattattct	tccgcctgtg	aaaagatggg	gagatctccg	60
tgctgtgaga	aggctcatat	taacaaaggg	gcctggacta	aacaagaaga	tgaccgcctt	120
atcgctcaca	ttcgagccca	cggcgaaggg	ggctggcggt	ctcttcccaa	ggccgcaggg	180
ctgctgagat	gcggcaagag	ctgcagactg	cgatggataa	actacctgcg	tcccgatctg	240
aagcgtggaa	gcttcacgga	agaagaagac	gaactcatca	tcaaactcca	ctccttcggt	300
ggcaacaagt	ggtctttaat	tgcaaggaga	ttgcccggac	ggacggacaa	cgagataaag	360
a						361

<210> 1685  
 <211> 340  
 <212> DNA  
 <213> Pinus radiata

<400> 1685						
caagagtaaa	cccgaaggaa	tagaagggga	aggaggcatc	ggcagcggtg	ttcctcctcc	60
tctcctctcc	tgcatctctc	aaactcaaat	acctctcctc	tcacaatcat	ggaaggcgga	120
gtcgtctttg	aatctgtgca	aaaccactg	gatcgctga	acactggaaa	tatggaccat	180
ggttgtgccc	attacaggag	acgatgtcgg	attcggggcc	cttggtgcaa	tgagatctat	240
gattgtaggc	actgtcacia	tgaagccatg	agccatctaa	aggaccctt	gctgcgcat	300
gagctcccaa	aatacaaaat	tgaacggggt	atttgggtct			340

<210> 1686  
 <211> 332  
 <212> DNA  
 <213> Pinus radiata

<400> 1686						
ggctcttccc	ggcagaccta	gtaagccgac	tactgtaaat	ttattctttt	agggttacag	60
aagaagaaaa	tacaagatgg	gcagatctcc	ttgctgtcta	aaagaagggc	tcaaccgtgg	120
ggcctggacc	aaaagggagg	atatgattct	ctccgaatac	attcgaattc	atggcgatgg	180

cggatggaga	aatatgcccc	aaagagcagg	tcttaaaccg	tgtggaaaga	gctgcagatt	240
acgatggctg	aactatcttc	gccccgacat	taaacgtgga	aacatttccc	ctgatgagga	300
ggaactcata	attcggctcc	atcgcttct	tg			332

<210> 1687  
 <211> 347  
 <212> DNA  
 <213> Pinus radiata

<400> 1687						
gattgatcaa	acacaaatac	cgtaaaattg	cagcgaaaat	ccaaaattcc	accatgggga	60
ctgtggcgga	agatggcagc	aagggttaca	aggccgtaaa	tccccatccc	aaaaagggcg	120
tcgcctcgtg	gctgggtggac	atgggtggaga	aactgggtgt	tgaaacttct	gcgttgata	180
gttcgaagaa	gcctctgcat	tttcttttgg	ggaacttcgc	tccagtctcg	gaaactgccc	240
ccaaatcgca	cctgcctgtt	gttgggcaac	ttcctagtgt	cttggatgga	gagttcgtgc	300
gccgttggtc	ccaatccgaa	attcgcaccg	gtagctggct	atcactg		347

<210> 1688  
 <211> 354  
 <212> DNA  
 <213> Pinus radiata

<400> 1688						
cgataggcgt	ggaagattta	atgacataat	ctgtaggaca	tgcaacgagc	cagggcatac	60
cagtagggag	tgcactggaa	ttctcatctg	ccacaactgt	ggtggccgtg	gacatgttgc	120
atacgaatgc	ccctctggtc	gtgtgatgct	gcgggacatg	cgcaggcatt	gatgctgcag	180
tttctacacc	accttgactt	tttagattat	ctgattttga	caaattctatt	ttgaatttgg	240
aagttctttt	tctgagtagt	tagatcagta	gacctgtcgt	atcagttatt	atacagtttt	300
cttatactag	tcctttactt	caagactggc	tgatatactt	ctattttcat	atga	354

<210> 1689  
 <211> 348  
 <212> DNA  
 <213> Pinus radiata

<400> 1689						
ggagattcct	ctctgcaaaa	tgcgctggac	cttgctcatg	gttatctgag	ccagattcca	60
tcatatggtc	atcggaagt	tctagtcttg	tattcagcac	taagcatttg	tgatccaggg	120
gatatcatgg	aaagtataaa	gaaatgcaag	aattcgaaaa	tgcgatgctc	agtggttgga	180
ttatctgcag	aaattttatat	ttgcaaacac	ctctgtgagg	agacgggagg	attctattcc	240
gtggcacttg	atgagtcaca	tttcaaggac	cttctgcttg	aacattgccc	tccaccacca	300
gccaatagcag	agtttgagct	tgctagcttg	gtcaagatgg	gatttcct		348

<210> 1690  
 <211> 349  
 <212> DNA  
 <213> Pinus radiata

<400> 1690						
tgcataccat	cattgtaatg	gaggtgaaag	gaataggagt	gggattctta	ttaagcaatg	60
gaaggttacg	ctgcgaataa	cgatgcagaa	cttctgagca	aaacccttca	agtggaacag	120
aagttgttct	atttcgatct	caaggaaaac	ccccgaggtc	aataccttaa	aatctctgag	180
aagacctccg	gctcacggtc	tacaataatt	gtgcccattg	gtggagtgtc	atggttcctc	240
gatctcttta	attattatgt	cgacggagat	gacgaggaag	ttttgagcaa	ggaattgcag	300
ctggatgcca	aggtatttta	tttcgatgtt	ggggtgaata	aaaggggtc		349

<210> 1691

<211> 339  
 <212> DNA  
 <213> Pinus radiata

<400> 1691  
 ctgaagtgcc gtcgattggt cgggaggata gcgtttttcga agttcgttgt tgagttatct 60  
 cgcgagactg tagaatttta gggttgtttt ccacaaaccg acttttcccg acttcaaate 120  
 ttgatattga agtgacatgg ccggcgagaa aagaaagatt aatagaatag ctaacgcttc 180  
 ggccaggcag gtcaccttcg cgaagaggcg gagggggctg ttcaaaaaag ctgaggagct 240  
 atcgatttta tgcgaagccg atgtagccct cctcgttttt tcttcaactg gaaagctgta 300  
 ccagtactcc agctccagca tgaaaatgat attggacca 339

<210> 1692  
 <211> 380  
 <212> DNA  
 <213> Pinus radiata

<400> 1692  
 gaaaccatga gggctcttgc acaaggtttg ttgagccaca acctgaatgg tcagtatttc 60  
 gtgaggcgag ctttggacat ggggaactta gaggttgcaa tgcaacacat gcacattgga 120  
 gctggcatcg taatgatgat gatgagccag ttaaacttga tgaagtttgg atcaataatc 180  
 ttagccaatc aagagaatgt atagaaagta ccgactacag tggaaggaaa atactaattg 240  
 caccttgagt atatgcttgg agggagaagt gatctaactg taattgcaa ggcaaaacac 300  
 tgagtgtgag ctcatgcacg gcaatgaatt tatgggttcag tgtttagttg tatggaagta 360  
 tattattcat tagacatgca 380

<210> 1693  
 <211> 442  
 <212> DNA  
 <213> Pinus radiata

<400> 1693  
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 gtagatcccc ttgcccccca aaagaagcgc ttaaccgtgg ggcttggaca ggcatggagg 120  
 atacgattct caccgagtag attcgagttc atggcagttg tggctggaaa gatattctca 180  
 aaagagcagg tcttaagagg tgtgcaaaga gttgcagatt gcgttggctg aactatcttc 240  
 gtcccgatat taaacgtggt aacatttctc ccgaggaaga agagctcatt attcggttgc 300  
 atcgcttctc tggaaatcgg tgggtctctga tagcaggacg actgcctggt cgaacagaca 360  
 acgaaatcaa gaattactgg aacactcata tgagcaagaa gccatggctg tcaatggacg 420  
 aatctcagtc caatacttcg ca 442

<210> 1694  
 <211> 351  
 <212> DNA  
 <213> Pinus radiata

<400> 1694  
 tttttttttt tttttcctta ctccacactt tttgttcgtc tgcgcatggt tttgtatctg 60  
 atgtcaaaat tgtctgcaac gcatgctgat gttgattccc atgcccgact acaacatctg 120  
 cacaaatagg aagttaagaa taaagcgaac aataaaagtg ccagccatta gcagtaaatt 180  
 ggcatgatct cctcccgatg attattcgtg gaggaagtat ggacaaaagc caatcaaggg 240  
 ctcccccacat ccaaggggct attataagtg cagcagcatg agaggttgtc ctgcccggaa 300  
 acatgtggag cgggtgtccag atgaaccttc catgcttatt gtgacttatg a 351

<210> 1695  
 <211> 304  
 <212> DNA

<213> Pinus radiata

<400> 1695

caaggccgta	aatccccatc	ccaaaaaggg	cgtccccctcg	tggctgggtgg	acatgggtgga	60
gaaactgggtg	gttgaaactt	ctgcgttgta	tagttccaag	aagcctctgc	attttctttt	120
ggggaacttc	gctccagtct	cggaaactgc	ccccaaatcg	cacctgcctg	ttgttgggca	180
acttcctagt	tgcttggatg	gagagtctgt	gcgcgttggt	cccaatccga	aattcgcacc	240
ggtagctggc	tatcactggg	ttgatggaga	tggaatgatc	catggtctca	gaattaaaga	300
tggt						304

<210> 1696

<211> 371

<212> DNA

<213> Pinus radiata

<400> 1696

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ccaaagcctg	ggttaggcca	gctcttaatt	cgagtcgggg	ccgctgctct	taatcctgcc	120
gactttaaga	gacggaaagg	cttattaaga	aacgcggatt	ccgattttcc	gactgtgcca	180
ggctgtgata	tgtcaggagt	ggtgggtggaa	attggtgatg	gtgtctccaa	gttcaaggcc	240
ggtgacgaga	tatacagcaa	catccagaat	ttcgcagcag	ggaggccaaa	gcagtgcggg	300
actctcgccc	agtacacagt	ggtggaggaa	ttcctggtag	cgccgaagcc	cagtaattta	360
tcatttgagg	a					371

<210> 1697

<211> 523

<212> DNA

<213> Pinus radiata

<400> 1697

ccttcattgga	tatgattggag	ttgattcggc	accatttgct	ggaagtggag	gacaatatag	60
atatagatat	tgatattgag	ggaacttcgc	cgttgttctt	cacccccact	gccattgaga	120
gtggcgatta	tattaattatt	gatgatcatg	acgatgatac	ccgagcaa	gccagagcga	180
ccagggcctc	atgccaaaat	atcgtcagca	gaacaacatt	aaaagagaac	gcgaatgaat	240
ttacacaaca	gatccattct	tcattcttct	caagatgctc	agttatgaaa	ggagcagagg	300
cgtttcaggt	aaagcaacaa	ccacgggagc	gggagaatgg	aaagaagaga	gagacaagtg	360
ccaggaatta	cagaggagtg	aggcggcggc	cgtggggaaa	attcacagca	gaaatcagag	420
attccgccc	gaagggtgct	cgggtttggc	ttggaacttt	caacaccgtc	gaagaggctg	480
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<210> 1698

<211> 471

<212> DNA

<213> Pinus radiata

<400> 1698

cgcgatagcc	gagagcacc	ttatctcctc	cactctgttt	catacatgca	acaagctctg	60
gcagcagcaa	tggcggccca	gactatcatc	gctgcctcta	tggcatctcc	tctaacatta	120
tcaaattggcc	actatccgtt	tcagtccgag	ttcaaggggt	ccgtgggttcg	aatcccgag	180
agggcatttt	ccttcgcgcc	tgcagcccg	gcgctgaccg	tcgtcgcaga	ggccaagaag	240
gccgttgccg	tgctcaaagg	gaattcacag	gtcgagggtg	ttgtcagctc	ctcgcaggaa	300
gacagcggtc	ccacaacagt	gaaggctcgt	ttgacaggac	tgactcctgg	gaagcatggc	360
tttcatctac	atgagtttgg	tgacacaacc	aatggctgca	tatcaacagg	agcacatttt	420
aatccaaaaa	aattgacaca	tggtgctcct	gaggatgatg	tacgccatgc	g	471

<210> 1699

<211> 483

<212> DNA

<213> Pinus radiata

<400> 1699

cttcctggtg	ttgttgctgt	gatttctctg	ccattctgtg	ttgggtttat	ggtttttagct	60
tcactacaag	ccttttagcaa	gcctcacaaa	taagctttgc	agtaggatgt	ctcctcccc	120
gtcatattcc	atgtttccca	attcaggaat	gggcttaaat	ccctcagtga	catcttcaga	180
accctctagt	caggctctccg	gatcgatccc	ccatcaatat	tcaggctccg	aggaagaccc	240
taaactgacg	atcgatgaaa	gaaagcagaa	gagaatgctt	tctaacagag	aatctgcaag	300
gagggtccagg	atgagaaaagc	aacagcattt	ggatgaattg	agagccgaag	cagctcatct	360
cagagcagag	aacagtcata	tgctaacaaa	attcaacatt	gcttcacaga	aatacatgca	420
gctggaagaa	gagaattctc	ttctgaggtc	ctatgccatg	gatttaagcc	tcaagctgca	480
gtc						483

<210> 1700

<211> 442

<212> DNA

<213> Pinus radiata

<400> 1700

ttttttttga	atagaaaaaa	tataattagg	tacttttcc	tagaatgttg	cagataattg	60
catttacttt	cctaagaagc	cattgtctaa	cttttagacca	tgatatgcag	ttactgcaaa	120
gatcttgaca	aacctaacca	atcacttata	cctactgtca	agtaaataatg	taacaaatat	180
caattttcaa	tcaaagggtgc	cattaagagt	tttaaccaac	aagggtgaagg	caatgaatct	240
ctagatctca	ctaacctaata	tctgctctac	ctaccaagct	agcagtctgg	cttgaaatta	300
gcagaacttc	caatgggttat	tacaattttac	acatgtcaca	aatgtagtca	taggttcatc	360
tgcaacttct	gtttgcaact	gatagtaagt	acacttccgc	tggccacatt	taccacactt	420
gaattggtct	gtttagctt	ta				442

<210> 1701

<211> 316

<212> DNA

<213> Pinus radiata

<400> 1701

ctaaattcat	atgctggaca	tacgtgatgt	catggcaggt	gttcttgctg	taaagaggaa	60
aagtttggtc	aaagatatct	atttcttaca	gaatgcagaa	ggttcaggtc	tggtccatt	120
tgactgttgg	ctatgcttgc	gagggatcaa	aacaatggct	ttgcgcattg	agaaacaaca	180
ggagaatgca	aggaaaattg	cagaattttt	gtcatctcat	cctctgattg	agaaagtata	240
ttatgctggc	cttcttagcc	acccaggcca	caatttacat	tttttgagg	caaaaggagg	300
aggttcagtt	cttagc					316

<210> 1702

<211> 329

<212> DNA

<213> Pinus radiata

<400> 1702

ataatgtcat	attttatatc	cagagacttg	aactatttgt	atgttgtaat	tcatattggt	60
tgacatgatt	gatatgtaca	tatgtttacat	ggatttagca	tgaggatgtt	gatgtttgac	120
cttattttaag	tgttcgtagg	ttgtaaaaaa	aaaaaaaaa	aactcgagac	tagttctcct	180
cgtgccgaat	tcggcacgag	ggaacagctg	aggaagagca	agaagaggtg	ttttgcgtgt	240
aacaggcggg	tggggctgac	gggcttttaag	tgccgctgtg	gtgacctttt	ctgcgctcag	300
cacaggtact	ctgatatgca	tgactgctc				329

<210> 1703

<211> 325

<212> DNA

<213> Pinus radiata

<400> 1703

ctcgtgccct	ggtgcaaaga	ttgttataag	aggcaagggt	tctgtcaagg	aaggtagatt	60
acagcaaaaa	cgtgatctga	aacctgatcc	atccgagaac	gaggacttgc	atgttttggt	120
tgaggcggag	acacaggatg	ctttggaaaa	agctgccggc	atggtggaga	anctgcttat	180
gcctgttgac	gagggtttga	atgagcacia	gcgggcgcag	ttgagagagc	ttgcggcact	240
taatgggaca	atacgggatg	atgaattctg	caggctttgt	ggtgaaccaa	gtcataggca	300
atatgcttgc	cctacaaggc	ttata				325

<210> 1704

<211> 453

<212> DNA

<213> Pinus radiata

<400> 1704

cttagcgtct	atagaagagc	agggactaat	tccatctttc	tccattttcta	tttctcttcc	60
caatcaaaac	catggcgtct	aacggacagc	ttaatgcagg	cactggctgt	gttgggtgatc	120
tgaccaatgt	tggagatcga	cgattggagg	ggaagggtgc	aatagtaacg	ggcggggcag	180
cgggcatagg	agaagccatt	gttcagttgt	tcattaagca	tggagccaaa	gtcataatcg	240
ccgacgttgc	ggagaaagct	ggcagaaagc	ttgagcaatc	cctttcaccc	gctgtggcaa	300
cttacgtgca	ctgcgatgtg	agcaaagaag	aggatgtaag	cgcagcagtg	gatgtggcca	360
tcgacaagta	tgggtcaactg	gacattatgt	ataacaacgc	tggaaactaac	gacagcgttt	420
tgggtgaagag	cgtagcagag	tatgatattg	agt			453

<210> 1705

<211> 242

<212> DNA

<213> Pinus radiata

<400> 1705

gaaaagggtca	attatcctgt	gttgctacgg	aaatctaaat	attcaagggtt	atggtatatg	60
ccagataaga	ttttctttac	tccaaaagct	gtcatcaaac	tggatttttca	ctgtcctgaa	120
tcaaactgtt	caccagaagc	agtactttcta	acttgtattt	ttactgcatt	attggtggat	180
tattttaaag	aatacgggtga	ctataagtgg	atacagtcac	aagatgagaa	ttttactgga	240
ga						242

<210> 1706

<211> 358

<212> DNA

<213> Pinus radiata

<400> 1706

gttttggtgt	tctgttttta	accttggaag	gttcaatttt	acagttttcta	cggaatttct	60
catattcaat	ctgtttggca	gattgaacta	aagatttttg	tccgggtgat	ttttggatta	120
aattcaagggt	cgacgaacgt	gaggtgctag	ggctttttaga	gtttggatgg	aacctatgga	180
catcgttggc	aagtccaagg	atgacgtctc	gcttcccaaa	gcaacctatgt	ttaaaattat	240
aaaagagatg	ctgcctccag	atgttcgtgt	tgcaagagat	gctcaggact	tactgggtcga	300
gtgttgtgtg	gagttttatca	atctaataatc	ttcagaatcc	aatgaagttt	gtggcaga	358

<210> 1707

<211> 334

<212> DNA

<213> Pinus radiata

<400> 1707

cgtttgcttg	ccgtgaaaga	aatcgaactt	ccggcgcttg	ggtgcgagaa	atatttgcaa	60
atcgaacttc	cggttggtg	gcaagaagct	tttgcgtttt	cggtttcaga	ttaaagcaat	120
atggagtcag	aggaagacaa	aatatctcca	gagaacaaga	aaaggagatt	aaaaacccca	180
cagcaggtcg	aaggtctaga	gagcttttat	gctgaacata	agtatccttc	ggaagctatg	240
aaatcacagt	tatcagaaga	actgggatta	acagagaagc	aggtacaagg	atggttctgt	300
cacaggaggc	ttaaggataa	aaggctcatg	aagg			334

<210> 1708  
 <211> 288  
 <212> DNA  
 <213> Pinus radiata

gcctcggcag	cggtgttcct	cctcctctcc	tctcctgcat	ttctcaaact	caaatacctc	60
tcctctcaca	atcatggaag	gaggagtcgt	ctttgaatct	gtgcaaaacc	cactggatcg	120
cctgaacact	ggaaatatgg	accatggttg	tgccattac	aggagacgat	gtcggattcg	180
ggccccttgt	tgcaatgaga	tctatgattg	taggcactgt	cacaatgaag	ccatgagcca	240
tctaaaggac	cccttgctgc	gccatgagct	ccaagatca	aaagttaga		288

<210> 1709  
 <211> 406  
 <212> DNA  
 <213> Pinus radiata

gttccccgtc	tcctccgtct	gctaggcatt	tctctgcgat	tcttcttctt	ctgctcgggg	60
tctctctggt	gaaatcgctc	ccgcaggagg	agggctgagg	gcagggtctcg	gctcggctcg	120
gttcgtttcg	gcaggagtta	tctcagggtt	tttctcttgc	tttctgcgc	cttcggactc	180
gggcttacag	ttacagcatc	tggaaaatgg	cgtcacagga	gagctcaaaa	atgcaagagg	240
aagggagtgg	gagacaagtg	ccggaagggc	ccattcactg	tttgaacaac	tgcggcttct	300
tcgggagcgc	ggccaccatg	aacttgtgct	ccaagtgcta	cagagagctt	aacgccaaac	360
caccttcttt	ttcttctcac	ttgaaacctc	agcaacctac	gcttga		406

<210> 1710  
 <211> 434  
 <212> DNA  
 <213> Pinus radiata

ccctcttcat	catcggcaaa	ctcattatct	cattcatcat	ttggtggaac	ctggccacaa	60
cctagtgtac	caacattgca	tcttcccggg	ggcagtcctc	aagttggtct	tcaagctagt	120
cgcctccgag	catcacttaa	tgccagagat	gtacctcttg	aggaattgac	cttagattcg	180
gattgtgaag	ggcaacttat	aaatgatttt	gcttctcttt	caggatctgg	aaacaccttg	240
atgaggtctg	gaaaatacaa	gagtcatggc	tgtagtattg	ctccagttaa	tcttgaggat	300
ctatttgctt	ctgagatgtc	tcctagggga	ccgtgccttg	aaccttccgt	gttttctcaa	360
ataagttctc	aaattcagtc	acataaggca	gctcaagttc	agcctcaggt	gcaaacatca	420
attagtaatc	agat					434

<210> 1711  
 <211> 387  
 <212> DNA  
 <213> Pinus radiata

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ggtcgcttag	tgactcttct	agggggacgt	gctgcagagg	aagtgggtata	ctcaggtcgt	120
gtttccactg	gtgcacttga	tgatataaag	cgtgcaacag	atatggcata	caaagctgtc	180



gctgaatatg	gtcttaacaa	gtccataggt	ccaatttcat	tggcgacttt	gtctgggtggc	240
ggtcttgatg	agtctggagg	agcaatgcca	tgggccaagg	atcagggaca	tatggtagac	300
cttggttcaa	gagaggtgaa	aattttgcta	caatcggcct	tgacaatggc	actccttgtc	360
atacgtctta	atccccactgt	acttgag				387

<210> 1712  
 <211> 440  
 <212> DNA  
 <213> Pinus radiata

<400> 1712						
ctccttagcg	tctatagaag	agcaaggact	aattccatct	ttctccattt	ctattttctct	60
tccaatcaa	aaccatggcg	tctaacggac	agcttaatgc	aggcactggc	tgtgttggtg	120
atctgaccaa	tgttgagat	cgacgattgc	aggggaaggt	tgcaatagta	accggcgggg	180
cagcgggcat	aggagaagcc	attgttcagt	tgttcattaa	gcatggagcc	aaagtcataa	240
tcgccgacgt	tgccgagaaa	gctggcagaa	agcttgagca	atccctttca	cccgctgtgg	300
caacttacgt	gcactgcgat	gtgagcaaag	aagaagatgt	aagcgcagca	gtggatgtgg	360
ccatcgaaaa	gtatggtaaa	ctggacatta	tgtataacaa	cgctggaact	aacgacagct	420
ttttggtgaa	gagcgtagaa					440

<210> 1713  
 <211> 446  
 <212> DNA  
 <213> Pinus radiata

<400> 1713						
ggctcttccc	ggcagaccta	gtaagccgac	tactgtaaat	ttattctttt	agggttacag	60
aagaagaaaa	tacaagatgg	gcagatctcc	ttgctgctca	aaagaagggc	tcaaccgtgg	120
ggcctggacc	aaaagggagg	atatgattct	ctccgaatac	attcgaattc	atggcgatgg	180
cggatggaga	aatatgccca	aaagagcagg	tcttaaaccg	tgtggaaaga	gctgcagatt	240
acgatggctg	aactatcttc	gccccgacat	taaacgtgga	aacattttcc	ctgatgagga	300
ggaactcata	attcggctcc	ntcgcccttc	tggcaatcga	tggtcgctta	tagcaggaag	360
attaccaggt	cgaacagaca	acgaaatcaa	gaactactgg	aacactcata	tgagcaagaa	420
gctgcttcca	ttgaacgaat	ctcaac				446

<210> 1714  
 <211> 519  
 <212> DNA  
 <213> Pinus radiata

<400> 1714						
attcatttcc	gtgtaagttg	caacgcctca	ttgtttcctc	aacctagtga	gtaacattcg	60
tgaattcggt	atgcaagtag	cttgccggaag	ggcacttcta	tcatgttatt	cttattccga	120
gctactgtca	gctatatgat	ggacctgtgt	tttcatcact	ggctcacttc	acctgtttga	180
gtatctgcca	tttttgatg	tttgtgtaag	cttggctaaa	taccagagac	acaaagaaac	240
cgctctgtag	ccggagttat	cgaaactatt	tacaatgcca	cgggtgaaat	ttatttccag	300
gaacttcatt	gacatgggtg	cagcattacc	ggctgcaaag	ttagatcggc	tttatgatag	360
tcatttcatt	tgcgaagcgg	ttctgaggtc	tctgactcct	gtgccaaaga	aatatgtatt	420
gcaactatta	tatattgacg	ttgcggtgcc	tgccaaatca	ctggaggaat	gggttctttc	480
agatggcctg	tctaagcaca	aagcagcaat	tgataggtt			519

<210> 1715  
 <211> 162  
 <212> DNA  
 <213> Pinus radiata

<400> 1715

cgccccgagc	aatttttgctt	ctctgctaaa	cgatgggaag	agcgcccttg	tgtgccaacg	60
gtgacagaag	caagggagcc	tggaccaagg	aagaggatga	caggcttacc	caatatattc	120
aggctcatgg	agaaggatgc	tggcgttctc	cccccaaggg	cc		162

<210> 1716  
 <211> 481  
 <212> DNA  
 <213> Pinus radiata

<400> 1716						
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ggtagggctc	cgtgaaattg	cgcattgtcat	gaatgtgctc	gtctgtaagt	ggctgcttta	120
cgccggcgaa	ggttcggacc	ctgtgggtgg	ggatgaattga	ctgtaagagg	ccgccgatct	180
cgatcgaagg	tgtacagaga	tcattaatgg	cgatgccgat	gccgttgctt	gtgaattgct	240
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gtcaagcggg	cattcatgta	gcggaacatc	acggcgatat	tccgcctcga	ggttaccgcc	360
accagcagcc	attggctcct	cccgcgggtc	gtccccagca	ctattcgccc	gctccgcctt	420
cttcccacgg	caggaagaag	gcggctcgtc	gcggcatttc	ttacagatat	tcccagcacg	480
a						481

<210> 1717  
 <211> 546  
 <212> DNA  
 <213> Pinus radiata

<400> 1717						
agaagtgcc	actgcaaact	ttgatttaca	ccatgctcac	tgtatacgaa	acttgcagcg	60
ctgcactgtt	tgcgggggata	tgattccaaa	aagtctgtct	atggaacacc	accaggatac	120
ccatgctcct	gtatcttggt	cacagtgtgg	cgaatccatt	gaacgtgaat	tactagtcct	180
ccatgagcgt	gacaagtgtc	ttcatagaat	tgttacatgt	ggttattgcy	agtttccact	240
gccagctgtt	gatcttgata	aacatctgaa	catctgtggg	aatagaacag	agtattgtaa	300
tccgtgcagc	aagtatgtga	gattgtgtga	aaagctagct	catgatttac	agttccatga	360
aggaaattct	gatgacactg	gggattcttc	aagagagcag	cacggggaaa	ataatcacag	420
ctcaccagca	gcagaactgt	ctcggagagt	tcctagggaa	cggccacgag	atacctcgca	480
gcgtcgttgg	cttgtcacat	tagcaatcac	aggaattgcc	ataattatag	gatcatttgt	540
tcttca						546

<210> 1718  
 <211> 631  
 <212> DNA  
 <213> Pinus radiata

<400> 1718						
tataaccgcc	tcttcttata	ctagtgcctt	tatcggttcc	attcaaactt	gctcacggat	60
tccgaccctt	ccggctaaaag	ctgctgcatt	tctgtgtgta	ttgaagatgg	ggagatctcc	120
ctgctgtgaa	aaagctcata	caaacaaagg	ggcgtggacc	aaagaagagg	acgatcgctt	180
catcgccacc	attcgaactc	acggcgaagg	ttgctggcgc	tcgcttccca	aggccgcagg	240
gctgatgcgc	tgcgggaaga	gctgcaggct	ccgatggata	aactacctgc	gtcctgatct	300
gaagcgtgga	aacttctcag	aagaagaaga	cgaactcgtc	atcaaactcc	actccctact	360
cggcaacaag	tgggtctctta	ttgcaggcag	attgcccggg	cggacggaca	acgagataaa	420
gaactactgg	aatactcaca	tcaagagaaa	attgctaaac	aggggactcg	acccccagtc	480
ccatcgcccc	ctcggccagc	cgcacaacag	caacacgacc	tgcctctctc	tgcccgccct	540
cgagcacgaa	attcttgtgt	tccagaggcc	aagaacgccg	gagatagcag	atttctttca	600
atacgagcgc	tctgaaagct	cgccgatgga	a			631

<210> 1719  
 <211> 561

<212> DNA

<213> Pinus radiata

<400> 1719

gaacgaacgg	tgaagataca	cagaggatct	ctcaacggct	tcattctccgt	cgctcgtctct	60
cctccttcca	tctccagcgt	ccgatctgat	cttatcaaag	gaagccctta	aatccctcca	120
gctttccaag	cgcgggttct	gttgctgtat	cccagggtccc	tggtcatatg	gcggaagctg	180
gcagcccggg	cagccaggaa	agtcctcgtt	ccggggaaca	aagccccag	tccagcgtgc	240
gggagcagga	caggttccta	cccatcgcca	acattagccg	catcatgaag	aaggcgtgc	300
cggccaacgg	caagatcgct	aaagacgcca	aggagaccgt	gcaggagtgt	gtctcggaat	360
ttatcagctt	catcaccagc	gaggccagt	acaaatgcc	gcgagaaaag	aggaagacaa	420
tcaacggcga	tgacttgctc	tgggccatga	gcacgctagg	gtttgaagat	tatatcgagc	480
ccttgaaggt	ttacttgctc	atgtacagag	aggcggaggg	tgacaataag	ggatcttcaa	540
aatctggagt	agaccaatat	g				561

<210> 1720

<211> 497

<212> DNA

<213> Pinus radiata

<400> 1720

ttattttgca	gcatcgagag	gcagcagcta	cggactaatc	gatccatcat	agccattttt	60
aatttcgctg	cccaatcgaa	ccatggagtc	taaggacag	gctaattccat	ctgttgcttc	120
tgtttgtaat	ctcagcaaga	atggagagcg	acgattggaa	gggaaagtgt	ttatagtaac	180
gggcggggca	gcgggcatag	gagaagccat	tggtcagctg	ttcgcaaagc	acggagcgaa	240
agtcataatc	gcagacgttg	cagagaaagc	tgccagaaag	cttgagaat	ccctttctcc	300
agcatcggca	acttatgtgc	actgtgatgt	cagcaaagaa	gaagacgtga	gcgcggctgt	360
ggatctggct	atggataagt	atggtcaact	cgacattatg	tataacaacg	ctggaactaa	420
cgacagcttt	ctggtgaaga	gcgtggcaga	gtatgatatg	gagcaattcg	atcgagtgat	480
gaacgtaaac	gtgaaag					497

<210> 1721

<211> 394

<212> DNA

<213> Pinus radiata

<400> 1721

aataaattgg	gttgcaaagc	tttccagttg	tttgccagca	ttgaggtggc	tgagacttga	60
agaaagtgt	caacaatttg	ctgtctttat	gttgtctcaa	gtcgatcttt	ccagagaagc	120
tgcacacttg	aaccgctttc	tttacaattt	tcgcaggtgg	aaagatgtgt	catttcctaa	180
gcccttgtag	ccacttgtag	acccggcagt	tttggtggag	acttatgaac	aaggcgagag	240
tgtggcacgc	tatgttgatc	agccagaagc	aaaccatagt	tttaatatag	cacttgctca	300
cactggcacg	catactctcc	tcaagatgct	actggtggat	aatttcatcc	atgcagatat	360
gcatcctgga	aatattttgg	ttcgaatggg	acaa			394

<210> 1722

<211> 394

<212> DNA

<213> Pinus radiata

<400> 1722

taaggctaag	cagaccagag	gaggtgaagg	agaaaaaaga	aacaatggct	ggaataggac	60
cgattagtca	ggattgggaa	cccgttgtca	tcaggaagaa	ggctcctaac	gctgcagcca	120
agaaggacga	gaaggctgtc	aatgctgccc	gtcgaactgg	aggccctatt	gaaactatca	180
agaaatttaa	tgcaggatca	aacaaagcag	cctcgagcag	caccaccttg	aacaccaaga	240
agcttgatga	tgagacagaa	gttctcgctc	atgaaagagt	ttcatcagat	ttgaagaaaa	300
acataatgca	agcccgttta	gataaaaagt	tgacacaagc	ccagcttgca	cagcaaatca	360

atgaaaaacc tcagattatt caagagtacg agtc

394

<210> 1723

<211> 317

<212> DNA

<213> Pinus radiata

<400> 1723

gattcttctt	cttctgctcg	gggtctctct	ggtgaaatcg	tccccgcagg	aggagggctg	60
agggcagggc	tcggctcggc	tcggttcggt	tcggcaggag	ttatctcagg	gtttttctct	120
tgcttttctg	cgccttcgga	ctcgggctta	cagttacagc	atctggaaaa	tggcgtcaca	180
ggagagctca	aaaaatgcaag	aggaagggag	tgggagacaa	gtgccggaag	ggcccattca	240
ctgtttgaac	aactgcggct	tcttcggggag	cgcggccacc	atgaacttgt	gctccaagtg	300
ctacagagag	cttaacg					317

<210> 1724

<211> 265

<212> DNA

<213> Pinus radiata

<400> 1724

cggattccga	cccttccggc	taaagctgct	gcatttctgt	gtgtattgaa	gatggggaga	60
tctccctgct	gtgaaaaagc	tcatacaaac	aaaggggctg	ggaccaaaga	agaggacgat	120
cgcctcatcg	cccacattcg	aactcacggc	gaagggtgct	ggcgctcgct	tcccaaggcc	180
gcagggctga	tgcgctgcgg	gaagagctgc	aggctccgat	ggataaacta	cctgcgtcct	240
gatctgaagc	gtggaaactt	ctcag				265

<210> 1725

<211> 284

<212> DNA

<213> Pinus radiata

<400> 1725

caagagtaaa	cccgaaggaa	tagaagggga	aggaggcatc	ggcagcggtg	ttcctcctcc	60
tctcctctcc	tgcatttctc	aaactcaa	acctctctc	tcacaatcat	ggaaggcgga	120
gtcgtctttg	aatctgtgca	aaacccactg	gatcgctga	acactggaaa	tatggaccat	180
ggttgtgccc	attacaggag	acgatgtcgg	attcggggcc	cttgttgcaa	tgagatctat	240
gattgtaggc	actgtcacia	tgaacccatg	agccatctaa	agga		284

<210> 1726

<211> 308

<212> DNA

<213> Pinus radiata

<400> 1726

caaaccgcca	agtgagcttc	atatctaacc	aataataaca	cctgtatagc	ttcacagcaa	60
cagggcacca	tgggccgagc	tccttgctgt	gataaaatgg	gagtaaagaa	aggcccctgg	120
actctagacg	aagataaaat	actggctcgac	tacattacca	aacatggcca	tggcaactgg	180
cgtgcactgc	ccaagcaagc	agggtcctg	cgatgtggaa	agagttgtcg	cctgcggtgg	240
acgaattacc	tgaacccga	catcaaaaga	gggaatttta	gtccagaaga	ggaagatcaa	300
attattaa						308

<210> 1727

<211> 338

<212> DNA

<213> Pinus radiata

<400> 1727  
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gctggcagga agcttgagga atcactttct cccgctgtgg caacttacgt gcactgcat 120  
gtgagcaaaag aagaagatgt gaccgcggcg gtggatgtgg ccatggataa gtatggccaa 180  
ctggacatta tgtataacaa cgctggaact aatgacagct ttttggtgaa gagcgtggta 240  
gagtatgata tggagcaatt cgatcgagtg atgaatgtaa acgtgaaagg agtgatgcac 300  
ggcattaagc accccgcccg cgttatgatc ccgcggaa 338

<210> 1728  
<211> 350  
<212> DNA  
<213> Pinus radiata

<400> 1728  
gcacgaggtt ttaacatctt ttgttgatat ccagaggctt gatgatgtga aaaatgccat 60  
aacaccatct accaaggttt tgtattttga atctatctca aacccaactc tggcagttgc 120  
agacatccca tctctgtctg ccattgctca tgagaaaaat gtcaagggtg tggttgataa 180  
taccttttct cccatgatca tatccctgc aaagcttggg gctgatgttg ntattcacag 240  
catttcaaaa tatatcagtg gaggtgctga tgttatagca ggagcaatat gtgggcctgc 300  
agatctgata aattccatga tggatctcca tcagggaacc ttgatgctct 350

<210> 1729  
<211> 333  
<212> DNA  
<213> Pinus radiata

<400> 1729  
ccagtccatg gtttcaagtt agttagtcca ataaagcaga gatgggtcgt gctccatgct 60  
gcacaaaagt tgggtctcaac aaggagcat ggtctgccga agaggatagt cttctgggaa 120  
gatataattca aactcatggt gaaggcaatt ggaggtctct gcccaagaaa gcagggctgc 180  
gaagatgtgg aaagagctgc agattgcgtt ggctaaacta tcttcggcca tgtatcaagc 240  
ggggaaaat tacaacagat gaagaagaac ttattatcag aatgcatgct ctcttgggca 300  
accgatggtc gataatagca gggagagtcc ccg 333

<210> 1730  
<211> 508  
<212> DNA  
<213> Pinus radiata

<400> 1730  
ctngtgccga agaaatctga atcgtcgcgt tcgtggtcga caggaagcca cagtgggcgg 60  
cctgagaaaac tgggttggtt ggtcgggagt gtcaagattg tgacgggtgg cggaccagcg 120  
tctagtttgt gttgggtggc ggcattagaa ggggcagagg gggcttttca gtgcatggga 180  
ttatgggcaa cgaaggcgcg gcatcgatgc ggctatgggg cgacgataat aattccatga 240  
tcgaggcttt catggggaac ctcgattact ctactccac cttctggaat ggcacgatg 300  
ccaatccctc ttcgctaccc tcgcccgcga ctcccgctcg tctgccgcag tgttgctatc 360  
gccacgccct tcaatcagga cacgctgcag caacgcttgc tggcgtttgt ggaggagcg 420  
gctgagtgct ggacttatgc catattctgg cagttgtcga gcgatgccag cggcggctcg 480  
gagcttgtct ggggcgacgg gtactaca 508

<210> 1731  
<211> 411  
<212> DNA  
<213> Pinus radiata

<400> 1731  
cggagtgaat tcatttgctg ccgtcactgc tgccaagggt tggttactgtt agattttgtt 60

atancggaca	atggcttcaa	cagacataga	tatgattccc	gtgccctctg	gcgagggttc	120
cagctctcaa	gcgggaccaa	gcgcttccac	caagaaggcc	aaacgtttcg	aaatcaagaa	180
gtggaatgct	gtagcccttt	gggcgtggga	tattgtgggt	gataattgtg	caatttgcag	240
aaaccacatc	atggacctct	gtattgagtg	tcaggcaaat	caagcaagtg	caacaagtga	300
agaatgtact	gttgcctggg	gtgtttgcaa	tcacgccttt	catttccatt	gcataagtcg	360
gtggctcaag	acacgacaag	tctgcccatt	agataataag	tgagtgggag	t	411

<210> 1732

<211> 390

<212> DNA

<213> Pinus radiata

<400> 1732

cgaaactcga	atcgatatgc	tttgtggccg	gttcaaatat	ttgagctggc	ttagcttctc	60
tgggttcagaa	atggcggact	aaagtaatag	tgtgccccga	ggctctgggt	tcgaatctcg	120
ttggcgtgaa	aggtcaaatt	tttctctcga	gtttcattga	ttctgaaaaa	ctggcatagc	180
tatggcgtag	agcaatggga	gattgtgtga	agatttggat	aggattaagg	ggcccgtgga	240
gccccgagga	ggacgcgtcg	ctgcagaggc	ttgttcagaa	atacgggccg	aggaactgga	300
ccctgataag	taaaggaatc	ccggggcgat	ccgggaaatc	gtgcaggcta	cggtggtgca	360
atcagctgac	cctcaggtgg	agcacagacc				390

<210> 1733

<211> 277

<212> DNA

<213> Pinus radiata

<400> 1733

atttactgga	accattgttg	gaataagtga	tgctgacctt	gtgaactggc	cgaattcaaa	60
gtggagatgc	ctcaaggtac	aatgggatga	aatatcagca	attgcacgac	cagagagagt	120
ttccccgtgg	aaattagaac	cttcattaac	tccagtggca	gtgaatcctc	tgccagtagc	180
caggggcaag	aggcctcggc	caaatatatt	accttcatct	tccgatttat	cagtgcattga	240
caaggcccca	gtggattcta	ctcaggtgca	caggttt			277

<210> 1734

<211> 221

<212> DNA

<213> Pinus radiata

<400> 1734

gttgcaggga	agggttgccg	tgatcacagg	aggcgccagt	ggaatcggag	aggctaccgc	60
caagtgtgtc	gtggagaatg	gagcgaaagt	agtgattgca	gaccttcagg	acgaccatgg	120
aaaccgtctt	gtcfaatccc	tcgctcccaa	cgctgtcttt	ttccactgcg	atgtctccaa	180
agaggcggac	gtttccgccc	tgctggactt	ggcgctggag	a		221

<210> 1735

<211> 316

<212> DNA

<213> Pinus radiata

<400> 1735

tgggctgttc	ccaggagagg	agagcctcag	ctgtctcgat	ctggcgttaa	ggggttacag	60
aagaagaatt	tcgaagatgg	ttagatcttc	ttgctattca	aagcaaggtc	ataggcgtgg	120
gatttggacc	cctatggagg	atatgattct	ctctgaatac	nttcgaattc	atggcagtga	180
tggatggaaa	aatatcgcta	aacgagcagg	tcttaaacga	tgtggaaaga	gttgcagatt	240
accgttgggt	gaactatctt	cgccccgaca	ttaaactgtg	taacatttct	cctgatgagg	300
aggacctcat	tattag					316

<210> 1736  
 <211> 464  
 <212> DNA  
 <213> Pinus radiata

<400> 1736  
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 gggttacaga agaagaaaat acaagatggg cagatctcct tgctgctcaa aagaagggt 120  
 caaccgtggg gcctggacca aaaggaggga tatgattctc tccgaatata ttcgaattca 180  
 tggcgatggc ggatggagaa atatgcccac aagagcaggt cttaaaccgt gtggaaagag 240  
 ctgcagatta cgatggctga actatcttcg ccccgacatt aaacgtggaa acatttcccc 300  
 tgatgaggag gaactcataa ttcggctcca tcgccttctt ggcaatcgat ggtcgcttat 360  
 agcaggaaga ttaccagggtc gaacagacaa cgaaatcaag aactactgga acactcatat 420  
 gagcaagaag ctgcttccat tgaacgaatc tcaaccaaac actt 464

<210> 1737  
 <211> 361  
 <212> DNA  
 <213> Pinus radiata

<400> 1737  
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 tacctctcct ctccacaatca tgggaaggcg agtcgtcttt gaatctgtgc aaaaccact 120  
 ggatcgcttg aacactggaa atatggacca tggttgtgct cattacagga gacgatgtcg 180  
 gattcggggc ccttggtgca atgagatcta tgattgtagg cactgtcaca atgaagccat 240  
 gagccatcta aaggaccctt tgctgcgcca tgagctccca agatacaaaag ttgaacgggt 300  
 tatttgttct ctctgtgaca ctgagcaaaa tgtcaagcaa gtttgcgaaa actgtggtgt 360  
 t 361

<210> 1738  
 <211> 371  
 <212> DNA  
 <213> Pinus radiata

<400> 1738  
 gcttttctgt ttcattcgat ttcgattgtg tagtgaagag catggccgaa caggtcttgg 60  
 aaggagtgca gccagtggat ctcgagaagc atccttcagg catcgttccc accctccaga 120  
 atatagtgtc cactgtaaac ttggattgca aattggactt gaaagccatt gctcttcaag 180  
 ctcgaaatgc agagtacaat cccaagcgtt ttgcagcagt cataatgaga ataaggagc 240  
 ccaaaactac agcactgata tttgcatcag ggaagatggt ttgcacaggt gcaaaaagt 300  
 aacaacagtc aaaacttgct gcaagaaagt atgctcgtat tatccaaaaa ttgggcttct 360  
 ctgctcattt c 371

<210> 1739  
 <211> 589  
 <212> DNA  
 <213> Pinus radiata

<400> 1739  
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 cactcttcgc atccagccct tcaaacttcc gcctcttggc ccccatgatg cgaagggtgcg 120  
 catgaaggct gtgggtatct gtggcagtga cgtccactat ttgaggacat tacggtgtgc 180  
 ggactttatt gtaaaagagc caatggtgat tggatcatgag tctgctggaa taattgagga 240  
 ggttggcagt gaagtgaac atctggttcc tggtagccgc gtagctttgg agcctggaat 300  
 atcgtgttgg cgttgtgacc aatgtaagcg aggtccttac aatttgtgtc ccgagatgaa 360  
 gttttttgca acacctcccg tgcatgggtc cttggccaat cagattgttc atcctgcaga 420  
 tttatgtttc aagttgccag ataataagaa tctcgaggaa ggtgccatgt gtgaaccact 480

cagtgttggg	gttcatgctt	gtcgccgtgc	ttctgtaggc	cctgagacaa	atgtcttggg	540
aatgggggca	ggtcctatcg	gccttgtcac	cggtgtgtct	gcacgtgca		589

<210> 1740  
 <211> 473  
 <212> DNA  
 <213> Pinus radiata

<400> 1740						
ctttgccgtg	ttcgggttcgt	attcaggggtt	tcgggagcctt	gttgtgtggg	gttctgcagg	60
tcaggacatt	gtaggcctgg	ttatacaaga	tttcgaagca	aactctcgga	gcctcgaaga	120
atcggcgcaa	atttcaacgg	ccttataact	atttggaag	cagtactctg	gatttttctc	180
ccggaacgga	tcggagtgtg	ggaagcgtaa	taatcgctg	gaatttgcct	tctgcaagat	240
aatattcaat	taatctattg	tcgaaggaaa	tttgagccgt	ataagaggat	aatcaaaaga	300
agccgggtga	tttctccggg	attaaaaggat	ggatcaagaa	aactggaaca	tcggagctga	360
tggcactggc	tgccaagctc	cagaagggca	cactctttgc	gccataaact	gcggcttttt	420
tggcagtctg	gcaacgagaa	acctgtgttc	gaaatgttac	agggatctga	tta	473

<210> 1741  
 <211> 546  
 <212> DNA  
 <213> Pinus radiata

<400> 1741						
atccaaataa	tacaactatc	tttgtgggtg	gcttagaccc	aactgtgaca	gatgatatgc	60
tgagatcatt	atttgggtcag	tttgagaaac	ttgtgcatgt	caaaatacca	gtgggaaaac	120
gttgtggatt	tgttcagttt	aataacaggg	cttctgcaga	ggaagcattg	caaagtctgc	180
atggtacagt	tcttgggtcag	caagccattc	gtctttcctg	gggacggagt	cctgcaaaca	240
aacaaactgc	tgggtgggtt	caaccccaac	aaccagatcc	aatcaatgg	aatggagctt	300
attatgggta	cggacaagga	tatgatgcag	gttatgggta	tgaccacaa	cctcaggatc	360
ccaatatgta	cagttatgcc	ccttatgcat	atggaaatta	tcagcagcag	taacattttac	420
ttgggttcag	gctcttctgt	ggacgtggaa	atatgggttc	attcatagag	ctgtctctgt	480
aaacagtgtg	ttttaacggg	catccagtca	acttatctat	attaaattta	atgaagagga	540
aagtct						546

<210> 1742  
 <211> 348  
 <212> DNA  
 <213> Pinus radiata

<400> 1742						
agcaacctac	gcttgagcag	ccgaatgcga	agcaccatc	gattccgctt	ccctcggcgt	60
tggtgccctc	aagtagcgac	gttccaatgg	tggaagcagt	agcagcagcg	gagacggcca	120
ttggcaccgc	tccatccagc	tcggcagaac	aggaggtgga	gaaacatgaa	caggacgagg	180
aggaacagct	gaggaagagc	aagaagaggt	gttttgctg	taacaggcgg	gtggggctga	240
cgggctttaa	gtgccgctgt	ggtgaccttt	tctgcgctca	gcacaggtag	tctgatatgc	300
atgactgctc	ttttgactac	aagactgccc	gccgcctcgc	cattctca		348

<210> 1743  
 <211> 300  
 <212> DNA  
 <213> Pinus radiata

<400> 1743						
cgaccatgct	tcaagtgctg	tcatgggtgg	tgtgtcatca	gcccccaaaa	ttatgntgct	60
catgaaggca	ggctatatgt	taggcacat	agctctcaac	tttttaggga	gaaaggtaac	120
ttcagccanc	tttcaaaggc	aacacctaca	aaaggggtga	ctgataactc	agacacagac	180



nacaagtgat	cattcggggc	agattttttgc	tgacagagtt	gtagtgtgtt	attgattcat	240
ttcatacatt	tgatatgcaa	gcctgtacaa	tatcctgtga	ctgttaaagg	cattcttttg	300

<210> 1744  
 <211> 355  
 <212> DNA  
 <213> Pinus radiata

<400> 1744						
ggctcttccc	ggcagaccta	gtaagccgac	tactgtaaat	ttattctttt	agggttacag	60
aagaagaaaa	tacaagatgg	gcagatctcc	ttgctgctca	aaagaagggc	tcaaccgtgg	120
ggcctggacc	aaaagggagg	atatgattct	ctccgaatac	attcgaattc	atggcgatgg	180
cggatggaga	aatatgcccc	aaagagcagg	tcttaaaccg	tgtggaaaga	gctgcagatt	240
acgatggctg	aactatcttc	gccccgacat	taaacgtgga	aacatttccc	ctgatgagga	300
ggaactcata	attcggctcc	atcgccttct	tggcaatcga	tggtcgctta	tagca	355

<210> 1745  
 <211> 294  
 <212> DNA  
 <213> Pinus radiata

<400> 1745						
attgcttgaa	agagatgcac	gagcatcttc	aatttgcttg	tccagtgtgc	tccaaatctg	60
tctgtgatat	gtctaaattg	tgggagaaac	ttgaccgaga	ggttgctttg	actccaatgc	120
ctgaagctta	ccagaacaaa	atgggtttgga	tcttatgcaa	tgatttggtga	gtaacttctg	180
aagtaaattt	tcacattgtt	gcacacaagt	gtcaaagttg	caattcttat	aacacccggc	240
agaccagggg	aggtccttct	gcaagttcat	gtagatctca	tctttgatat	tctc	294

<210> 1746  
 <211> 316  
 <212> DNA  
 <213> Pinus radiata

<400> 1746						
aaccgcctct	tcttatacta	gtgcctttat	cggnnccatt	caaacttgct	cacggattcc	60
gacccttccg	gctaaagctg	ctgcatttct	gtgtgtattg	aagatgggga	gatctccctg	120
ctgtgaaaaa	gctcatacaa	acaaaggggc	gtggaccaaa	gaagaggacg	atcgctcat	180
cgccacatt	cgaactcacg	gcgaagggtg	ctggcgctcg	cttcccaagg	ccgcagggct	240
gatgcgctgc	gggaagagct	gcaggctccg	atggataaac	tacctgcgtc	ctgatctgaa	300
gcgtggaaac	ttctca					316

<210> 1747  
 <211> 263  
 <212> DNA  
 <213> Pinus radiata

<400> 1747						
gtggctgttc	ccaggagagg	agagcctcag	ctgtctcgat	ctggcgttaa	ggggttacag	60
aagaagaatt	tcgaagatgg	ttagatcttc	ttgctattca	aagcaaggtc	ataggcgtgg	120
gatttgacc	cctatggagg	atatgattct	ctctgaatac	attcgaattc	atggcagtga	180
tggatggaaa	aatatcgcta	aacgagcagg	tcttaaacga	tgtggaaaga	gttgcagatt	240
acgttggttg	aactatcttc	gcc				263

<210> 1748  
 <211> 145  
 <212> DNA  
 <213> Pinus radiata

<400> 1748  
 ttcggtcggg gaattgtggg tgggagcccc accggaggag tganggaaac tcaagagatg 60  
 ttggactttt gtgcagagca taacatcagt tgcattgattg aaaacattgc aatggattac 120  
 cgtgaacaca gcaatcgaac gatta 145

<210> 1749  
 <211> 206  
 <212> DNA  
 <213> Pinus radiata

<400> 1749  
 ctggtgtgaa tcacatcggg gatggcattc gcaggaacac agcanaagtg caaggcatgc 60  
 gagaagacgg tgtacgtggg ggatcagctc acagccgatg gttcagtctt tcacaaggcc 120  
 tgcttccgct gccatcattg caatggcacc ttaaagctca gcaactattc ttcttttgaa 180  
 ggggtgctgt actgcaaacc tcactt 206

<210> 1750  
 <211> 263  
 <212> DNA  
 <213> Pinus radiata

<400> 1750  
 gttaaatttg accccttcaa tgcgttttat ggttcagcct ctatgttaat ttgacacagt 60  
 gagctgaaat attgcggtctg gatgtgtaca ttcacgacta tctcataaaa cggaatcttc 120  
 ttgcatctgc caagacattt atgacggagg caaaagtctt tccagaacca gtcgcaattg 180  
 atgcacctgg aggccttttg tttgaatggg ggtctgtgtt ttgggatatt ttcattctac 240  
 ggacaaatga gaagcactct gag 263

<210> 1751  
 <211> 321  
 <212> DNA  
 <213> Pinus radiata

<400> 1751  
 ccaatatggg ggcagatagt atgggttcctg ttcacactcc tgaagttatt gagcattctt 60  
 ctacaaaagt ttctattgat acagctgggt caatggatgt ggatgcagca tccaagtgc 120  
 atcacgttta cagaactaca tctctcaacc actgtgtctc ttcctcccc atagatgttg 180  
 gaattgtacc tgacagcaac attacatctg atatttcaac accttaccat gacccaagag 240  
 gagtattcga gattcctcct cgggttggtc atcctggagg ccaaggtgag gtcattggaa 300  
 gagaagcaag agttctcaga t 321

<210> 1752  
 <211> 316  
 <212> DNA  
 <213> Pinus radiata

<400> 1752  
 cggccccgagc aatttttgctt ctctgctaaa cgatgggaag agcgccttgc tgtgccaacg 60  
 gtgacagaag caagggagcc tggaccaagg aagaggatga caggcttacc caatatattc 120  
 aggctcatgg agaaggatgc tggcgttctc tccccaggc cgcaggctctg cttcgggtgtg 180  
 gaaaaagtgt caggctgaga tggataaatt atcttcgccc tgatctgaaa cgaggaggtt 240  
 tttctgaaga tgaagacgat cttattctca aactgcacgc cctcctcgga aataagtgg 300  
 ctctgatagc gggtcg 316

<210> 1753  
 <211> 335

<212> DNA

<213> Pinus radiata

<400> 1753

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atgccgccgc	cgccaccagc	ccggacagca	gcctgggctc	agacaacgag	tccggcggcg	120
gaggaggagg	cggcggagga	gaagggcagt	cgacgaagaa	tggcaatggc	aactacatta	180
gagagcagga	tcgcctgctc	cccatagcga	acgtggggcg	gataatgaag	cgggcgctgc	240
ggggaatgcg	aaaatctcca	aagacgcgaa	ggagacgggtg	caggaatgtg	tgctggagtt	300
catcagcttc	attaccggcg	aggcctctga	caagt			335

<210> 1754

<211> 349

<212> DNA

<213> Pinus radiata

<400> 1754

cacacagaag	cttgtccgat	ggcgatcacg	caggggaaat	ggctacaggt	gaatcagaag	60
gaaggggggc	caaaagcgcg	gagctcccat	gcagttgcag	tgggtgggaaa	aaaggcgtat	120
gtgttcgggtg	gagaggtgga	gccgcgcgtg	ccagtggaca	atttgatgca	tatcttggat	180
ctggaggaca	attcctggtc	cgtggcggat	gccaagggag	aggcaccgcc	tcccagagtg	240
ggggtcacca	tggctccctat	cggctctgtt	atttatctct	tcggtgggtcg	agaccagcat	300
cacaaggagc	tcaaccattt	ctattccttc	gatacnaatt	cctgccagt		349

<210> 1755

<211> 289

<212> DNA

<213> Pinus radiata

<400> 1755

tcttaatgcc	ctaaaggagc	ccagcaagaa	gatcgacggc	cgcattgactg	tcagtcagtt	60
ggcctctgct	ggttcacagc	ctgcccagcc	ggcggctgat	gtatctgccc	ggaaaatcta	120
tgctcggaat	gttcccatgg	acatggcggc	agatcgccctg	ctgagccttt	tttctcagta	180
tggagagatc	gaagaggggc	cactaggggt	tgataagcaa	tcgggcangt	caaggggttt	240
tgcgcttttt	attttcaagt	cangtggacg	caactaagcg	tgctgttga		289

<210> 1756

<211> 235

<212> DNA

<213> Pinus radiata

<400> 1756

agagtatgat	cctgttgcta	aaatttcaat	cattcctcgt	ggacaagctg	gaggtctgac	60
attctttgct	cctagtgaag	agagactgga	atctgggctt	tacagcagaa	gttaccttga	120
gaatcagatg	gcagttgccc	tcggtggaag	ggtggcagaa	gaagttattt	ttgggaaaga	180
aaatgtcaca	acaggagcat	cgaatgactt	cccacaagta	tctcgtgttg	cccg	235

<210> 1757

<211> 457

<212> DNA

<213> Pinus radiata

<400> 1757

gtaggatgga	aggcacgggt	aagagattca	aagggaaggt	ggcgggtggtg	accgcttcaa	60
cacagggcat	aggattcgcc	attgcacagc	accttggcct	cgaagggtgct	tccgttgctg	120
tctcttcacg	caaaaagaac	aatgtagagg	aagcagtgga	aaagatgaga	gccaaagggg	180
ttgatgttct	gggagtggcc	tgccatgttt	ccagtcgaga	acagaggagg	gatctcatcc	240

aaaagactgt	agataaatat	ggtcacatag	acattctggt	ctcaaagtca	gctgctaate	300
caactgtgaa	gcccattgtt	ttagttccag	agcctgtact	tgataaaatt	tgggagatta	360
atgtcaaggc	cactattctt	cttgtccagg	aagctgctgc	tcacttgtca	caagagtcac	420
caattatcat	aatttcatca	gttgctgctt	acagacc			457

<210> 1758

<211> 345

<212> DNA

<213> Pinus radiata

<400> 1758

catgtctttg	attcggggcaa	gcagacatgg	agtaagccta	tggtgaaagg	aaccccgccc	60
tctcccagg	acagccacag	ctgtaccact	gtgggaacaa	acttgttgt	atttgggtggc	120
acagatggga	agaacctct	acgggatttg	catatgctgg	acactactac	aaatacatgg	180
gtgcaacct	acgtaagtgg	tgaaggaccg	gcagctcgtg	aggggcacag	tgctgcactc	240
attgatcacc	gtctttttat	atttgagggt	tgtggaaaag	ttcaagatga	atctgaagag	300
atatattaca	acgaccttta	catactagac	acagtttaact	taatt		345

<210> 1759

<211> 544

<212> DNA

<213> Pinus radiata

<400> 1759

gagcaacca	cattgcattg	attgcactac	agtttcagcg	attttcaggt	catctcaggt	60
gtgcagctta	agcttattct	cttgaaaata	tggtcgagga	aggagagaag	gtcatggtaa	120
acgtttatga	tctaagccaa	ggacttgctc	gtcaactctc	aactactttt	cttggaaaag	180
ccattgaagg	aatttggcat	accggtgtgg	tagtttatgg	gaaggagtat	tactttgggg	240
gtggtattca	acacagccct	acagggcaaa	ctccatattg	aaaaccgtgg	aaagtgggtg	300
agttgggtgt	cactcacgtt	ccgatggaaa	tgtttgaaag	attcctggaa	aaaataagcc	360
ctcgctatac	agcttaaaca	tatagtttgg	tgaccataaa	ctgtaacaac	ttcagcgatg	420
aggttgacaa	gtttttgggt	ggctgcaaca	tcccagattt	catccttagg	ctcccacaag	480
aagtgatgaa	cagcccaatg	ggccctttta	taatgcccac	gataatgcag	tttgaagcta	540
ctct						544

<210> 1760

<211> 375

<212> DNA

<213> Pinus radiata

<400> 1760

cgatagccga	gagcaccctt	atctcctcca	ctctgtttca	tacatgcaac	aagctctggc	60
agcagcaatg	gcggcccaga	ctatcatcgc	tgctctatg	gcctctcttc	taacattatc	120
aatggccac	tatccgtttc	agtccgagtt	caaggggtcc	gtggttcgaa	tcccgcagag	180
ggcattttcc	ttcgcgcttg	cagccccggc	gctgaccgtc	gtcgcanagg	ccaagaaggc	240
cgttgccgtg	ctcaaaggaa	attcacaggt	cgagggtgtt	gtcaatctct	cgcaggaaga	300
caacgggtcc	acaacagtga	aggtccgttt	gacaggactg	actcctggga	agcatggctt	360
tcactatcat	gagtt					375

<210> 1761

<211> 333

<212> DNA

<213> Pinus radiata

<400> 1761

tttatatttt	tacaatccga	ggttgcaggg	actttcagag	aggtcgatac	cgtggaaaag	60
actgagattg	acggatcgat	tgcaatggcg	tttgcggaag	agtattccga	tcgcgatgcc	120

gtatttcaaaa	agctgaaggc	gaagtctgaa	aacaagattt	gttttgattg	caatgctaaa	180
agtcccagtt	gggccgtccg	tgacatatgg	agtattcatt	tgtcttgatt	gttcagcaat	240
gcatcgaggt	cttgggtgttc	atgtcagttt	tggaggtcta	caaatctcga	tacatggacc	300
atggagcagt	tgaaattgat	gagctttggt	ggt			333

<210> 1762  
 <211> 331  
 <212> DNA  
 <213> Pinus radiata

<400> 1762						
ctcgtgcccc	actataggcc	gcaccaccct	cagccgtttc	ttctttgcct	ctcttcttct	60
tgtgggcat	gtgacctatg	gcctattcat	tttctgcact	ggatctgaga	gcgaggggga	120
agttaacgag	agccctggct	ccacgaattt	tgaaggcggc	gcggncatat	gcgagagcag	180
cctcttcggc	ggtgatgaaa	gngccgagcc	aaactctggt	cctcttggcg	gggtctctga	240
tttcagctgc	gaatttacc	cacggccgct	gccggactcc	tctgtagcgc	ctagctccgc	300
tcactctgctt	catctctcca	ctctgctctt	c			331

<210> 1763  
 <211> 568  
 <212> DNA  
 <213> Pinus radiata

<400> 1763						
ccggccgccc	cctccgacct	gcctgatgga	acacagtggc	gctacagcga	gttcttgaac	60
gccgtgaaga	agggtaaggt	ggagcgcgtc	cgcttcagca	aggacggcag	ctacctccaa	120
ctgagcgccg	tcgatgggag	gcgtgccact	gtaaccctgc	caaacgaccc	ggacctgggtg	180
gacatccttg	cgatgaatgg	tgtggacata	tcggtttccg	agggggaggc	gagcaatggc	240
ctcttcagcg	taatcggtaa	tctttttattc	ccaatttttag	ccttcggggg	tttattcttc	300
ttatttcggc	gggctcagg	aggccctggg	ggtcccggag	gtttgggagg	ccctatggac	360
ttcggtcgct	ctaagtccaa	gttccaggag	gtgccggaga	ctggagttac	atttgccgac	420
gtggcaggcg	ctgaccaggc	caagctggag	cttcaggagg	tgggtggattt	cttgaaaaac	480
cctgataagt	atactgccct	tggtgccaag	atcccccaagg	gatgcttgtt	ggtaggtccg	540
ccggggacgg	gcaagactct	actggccc				568

<210> 1764  
 <211> 351  
 <212> DNA  
 <213> Pinus radiata

<400> 1764						
gagaaggaag	ctgctcttgc	tgccacacca	ccagaagatg	ataaacctac	aatatttgac	60
acaatactgc	agaaggagat	tcccagtaca	gtggtttacg	aggatgagaa	ggtacttgca	120
ttcagggata	tcgcacccca	agcacctact	acatcattat	catccccaaa	gtaagggatg	180
gcttgactgg	cctatctaag	gcagaagaga	ggcatgagga	tatttaggtc	acctgctata	240
cactgcaaaa	gttattgcaa	agcaggaagg	tttatctgat	ggcttcagaa	ttgtcattaa	300
cgatggctct	actggatgcc	aatctgtgac	catttacata	ttcatctact	c	351

<210> 1765  
 <211> 462  
 <212> DNA  
 <213> Pinus radiata

<400> 1765						
tgtaaattta	ttctttttagg	gttacagaag	aagaaaatac	aagatgggca	gatctccttg	60
ctgctcaaaa	gaagggtca	accgtggggc	ctggaccaaa	agggaggata	tgattctctc	120
cgaatacatt	cgaattcatg	gcgatggcgg	atggagaaat	atgcccaaaa	gagcaggtct	180

taaacggtgt	ggaaaagagct	gcagattacg	atggctgaac	tatcttcgcc	ccgacattaa	240
acgtggaaac	atctccctg	atgaggagga	actcataatt	cggctccatc	gccttcttgg	300
caatcgatgg	tcgcttatag	caggaagatt	accaggtcga	acagacaacg	aaatcaagaa	360
ctactggaac	actcatatga	gcaagaagct	gcttccattg	aacgaatctt	aaccagact	420
ttgctgtcc	ccaaaaagag	gtcgcaatct	tcttctccct	gc		462

<210> 1766

<211> 532

<212> DNA

<213> Pinus radiata

<400> 1766

gtaaaaaatga	ccacggcgtg	gacttctgga	acnccccgga	gcgttcagga	tggttgatga	60
agcagggcga	gtacatcaaa	acatggaggc	gcagatgggt	tggtctaaag	cagggaaagc	120
tcttctgggt	caaggaaaat	tacatcacia	gggattctaa	tccccgtgg	gttggtccgg	180
tgagcacctg	cctgactgtc	aaggagccg	aagacgtcct	caacaagcca	ttgccttcg	240
agctctcgac	gagcagagag	accatgtact	tcatcgcaga	cagcgataag	gagaaggagg	300
agtggatcaa	ttccatcggc	cgctccatcg	tacagcattc	caggtcagtt	acagacaagg	360
agatcgntga	ttatgatagc	cagcgtgccg	ataaatgaat	acccaattcg	aatcggatgg	420
attcgctgta	aattggttgc	aattaggggt	tctaggggtt	tcttttgaat	tttgtgatgg	480
aacgccttaa	atcggttgtc	cattgcattt	ctaggatgaa	tcttaataaa	tt	532

<210> 1767

<211> 354

<212> DNA

<213> Pinus radiata

<400> 1767

aaccgcctct	tcttatacta	gtgcctttat	cggttccatt	caaacttgct	cacggattcc	60
gaccttccg	gctaaagctg	ctgcatttct	gtgtgtattg	aagatgggga	gatctccctg	120
ctgtgaaaaa	gctcatacaa	acaaaggggc	gtggaccaa	gaagaggacg	atgcctcat	180
cgccacatt	cgaactcacg	gcgaagggtg	ctggcgctcg	cttcccaagg	cgcgaaggct	240
gatgcgctgc	gggaagagct	gcaggctccg	atggataaac	tacctgcgtc	ctgatctgaa	300
gcgtggaaac	ttctcagaag	aagaagacga	actcgtcagt	aaactccact	tcct	354

<210> 1768

<211> 430

<212> DNA

<213> Pinus radiata

<400> 1768

cttcgacggc	gcgatagccg	agagcaccct	tatctcctcc	actctgtttc	atacatgcaa	60
caagctctgg	cagcagcaat	ggcggcccag	actatcatcg	ctgcctctat	ggcatctcct	120
ctaacattat	caaatggcca	ctatccgttt	cagtccgagt	tcaaggggtc	cgtggttcga	180
atccccgaga	gggcattttc	cttcgcgcct	gcagcccggg	cgctgaccgt	cgtcgcagag	240
gccaagaagg	ccgttgccgt	gctcaaaggg	aattcacagg	tcgaggggtg	tgtcagctctc	300
tcgcaggaag	acagcgggcc	cacaacagtg	aaggctccgt	tgacaggact	gactcctggg	360
aagcatggct	ttcatctaca	tgagtttggt	gacacaacca	atggctgcat	atcaacagga	420
gcacatttta						430

<210> 1769

<211> 407

<212> DNA

<213> Pinus radiata

<400> 1769

gaacgaacgg	tgaagataca	cagaggatct	ctcaacggct	tcattctcgt	cgctcgtctct	60
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cctccttcca	tctccagcgt	ccgatctgat	cttatcaaag	gaagccctta	aatccctcca	120
gcttttccaag	cgcggttct	gttgctgtat	cccaggtccc	tggtcatatg	gcggaagctg	180
gcagcccggg	cagccaggaa	agtctctgtt	ccggggaaca	aagccccag	tccagcgtgc	240
gggagcagga	caggttccta	cccacgcca	acattagccg	catcatgaag	aaggcgctgc	300
cggccaacgg	caagatcgct	aaagacgcca	aggagaccgt	gcaggagtgt	gtctcggaat	360
ttatcagctt	catcaccagc	gaggccagt	acaaatgcca	gcgagaa		407

<210> 1770

<211> 347

<212> DNA

<213> Pinus radiata

<400> 1770

cagacttttg	ctccgaactg	ttctgggtgaa	acaaaatcca	gtattgagct	aggtttagaa	60
tcgggtttgc	tggtcatctg	ggagaggcga	tccattcagc	ttcgaggcc	cccgaagatg	120
gcgttcgccc	gcacaaccca	gaagtgcaag	gcatgtgaaa	agacggtcta	tttggttgat	180
caattgacag	ctgataattc	tgtttttcac	aaatcctgtt	tccgctgcca	tactgcaat	240
ggaactttta	agcttagcaa	ctattegtcg	tttgaggagg	ttctatattg	caaacctcat	300
tttgaccagc	tgtttaagag	aacaggaagt	ttggataaaa	gttttga		347

<210> 1771

<211> 469

<212> DNA

<213> Pinus radiata

<400> 1771

cgatagccga	gagcaccctt	atctcctcca	ctctgtttca	tacatgcaac	aagctctggc	60
agcagcaatg	gcggcccaga	ctatcatcgc	tgctctatg	gcctctctc	taacattatc	120
aatggccac	tatccgtttc	agtccgagtt	caaggggtcc	gtggttcgaa	tcccgcaaag	180
ggcattttcc	ttcgcgctg	cagcccgggc	gctgaccgtc	gtcgcagagg	ccaagaaggc	240
cgttgcgctg	ctcaaaggaa	attcacaggt	cgaggggtgt	gtcaatctct	cgcaggaaga	300
caacggctcc	acaacagtga	aggtccggtt	gacaggactg	actcctggga	agcatggctt	360
tcactacat	gagtttggtg	acacaaccaa	tggtctgcatc	tcaacaggag	cacattttta	420
tccaaaaaaa	ttgacacatg	gtgctcctga	ggatgatgta	cgccatgcg		469

<210> 1772

<211> 461

<212> DNA

<213> Pinus radiata

<400> 1772

tcttaccctt	ttcctgagcc	accgagaatt	tctctctcgg	aataccact	tctcagagat	60
tcttgctgcg	aactctgttt	tcttcagcga	gatttgctag	tgaattgtga	ggagtattga	120
gtcttatcat	gcggatccag	tgcgatgcct	gcgagcaggc	aactgcttca	gtgatatggt	180
gtgcagacga	ggctgctctg	tgcagggaa	gtgatataaa	agtccacaag	gccaacaagc	240
ttgccagcaa	acacaagaga	ttatctctcc	tcgaaacttc	tcgaaagctc	tctcgctgcg	300
acatttgcca	ggatagggcc	gccatcggtt	tctgtctcga	agatcggtgt	atgctgtgcc	360
aagactgcga	tgagtcggtt	cattctcgcg	acacattagc	agcaaaacac	caaagggtcc	420
tggccactgg	cattagggta	ggtctcaatg	ccctgtcatc	a		461

<210> 1773

<211> 332

<212> DNA

<213> Pinus radiata

<400> 1773

gacaatatgg	ctgcatggct	cactggaata	aacactcttc	gcatccagcc	cttcaaactt	60
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ccgcctcttg	gcccccatga	tgccaaggtg	cgcatgaagg	ctgtgggtat	ctgtggcagt	120
gacgtccact	atttgaggac	attacgggtg	gcggacttta	ttgtaaaaga	gccaatgggtg	180
attgggtcatg	agtctgctgg	aataattgag	gagggttgga	gtgaagtga	acatctgggt	240
cctggtgacc	gcgtagcttt	ggagcctgga	atatcgtgtt	ggcgttgtga	ccaatgtaag	300
cgaggctcct	acaatttggtg	tcccagatg	aa			332

<210> 1774  
 <211> 322  
 <212> DNA  
 <213> Pinus radiata

<400> 1774						
ctcctgtgca	gcgtacgcct	tcgcctttgc	gatttcgagc	cccattggaa	ttgccattgg	60
aatacttatt	gacgccacta	cagagggccg	agtggcagac	tggatttatg	caatctcaat	120
gggttttgcg	tcgggtgttt	tcgtttatgt	tgccatcaac	catcttctga	tgaaaggatt	180
aatacagaac	cctctgaaag	gtgtgattcg	ctttgacaaa	cccttttaca	aatatttggc	240
tgtactcact	ggagctggac	tgattgcagt	ggtaatgatt	tgggacacct	agtggtaatg	300
aattgggaca	cttcttagct	gc				322

<210> 1775  
 <211> 428  
 <212> DNA  
 <213> Pinus radiata

<400> 1775						
gagagagaga	gagagagaga	gagagagaga	gagagagact	cnngccgant	tcgnmacnag	60
cgaagccngt	ttccaaanat	ggatngggag	aaactcatga	agatggctgg	tgcaagtccgc	120
actggcggaa	aggggtacaat	gcgaaggaaa	aagaagacaa	ttcataagac	tgccacggca	180
gatgacaaga	gacttcaaag	taccttgaaa	agaataggcg	tgaataacat	ccctgctatt	240
gaagaagtca	atatttttaa	ggatgaccat	gttattcatt	ttgctaacct	aaagggtccag	300
gcttctattg	ctgccaacac	atgggtgggt	agtgggtcat	cgcaaacaaa	aaaacttcaa	360
gatcttttcc	ctgggtatcat	caatcagctt	ggaccagaga	gttttgccaa	tctgaggaag	420
attgcaga						428

<210> 1776  
 <211> 512  
 <212> DNA  
 <213> Pinus radiata

<400> 1776						
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ccttaccagt	ttgggcctct	ttttgcggtt	tctacacata	gccgctgcga	ttctggggag	120
tttctttggc	ttagattttt	ggggtaaaat	tctgggtatt	gtggtttgct	cacactaatt	180
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atcagcagcc	gcagtattcg	aatgacgaaa	tccggacact	ttggatcggg	gatttgcagt	300
attgggtcga	tgaaaattat	ctccatactt	gcttttcgca	aaccggagag	gttgtgtcta	360
taaaggatgat	tcggaacaag	gctacaggct	atccggaagg	ttatggtttt	gtggagttaa	420
tttcccatgc	agcagctgag	aggattcttc	aaacatacaa	tggtacacag	atgcctggca	480
cagagcaact	ttatagatta	aattgggctt	cc			512

<210> 1777  
 <211> 498  
 <212> DNA  
 <213> Pinus radiata

<400> 1777						
ggatggaagg	cacaagtaag	agattcaaag	ggaaggtagc	ggtggtgacc	gcttcaacaa	60



gggcataggg	ttcgccattg	cagagcgcct	tggcctcgaa	ggcgcttccg	tcgtcgtctc	120
atcacgaaaa	cagaaaaatg	taggggaagc	agtggaaaag	ctgagagcca	aagggattga	180
tgttctggga	gtggcttgcc	atgtttccag	tcgagaccag	aggagagatc	tcatccaaaa	240
gactgtagat	aaatatggtc	gcatagacat	tctgggtctc	aatgcagctg	ctaatacaac	300
tgtggacccc	attgtttcgg	ttccagagcc	tgtacttgat	aaactttggg	agattaacgt	360
caaggccact	attcttcttg	tccaggatgc	ttctgctcac	ttgtcacaag	agtcatacat	420
tatcataatt	tcgtcaatta	ctgcttacag	gccagaggca	atgatggcca	tgtatggggg	480
taccaagact	gctctttt					498

<210> 1778  
 <211> 435  
 <212> DNA  
 <213> Pinus radiata

<400> 1778						
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gcgagtgttg	cagaattttt	atgcagtggg	tcggcggata	atactattag	aatgtggaaa	120
aggggagaag	gaaacaggca	ttactgtttg	gcggttttag	aaggtcacag	aggacctgtt	180
aagtccatcg	cagtgtcttt	agacactgtg	aggggatgcc	acgtctacag	cggaagcctg	240
gatcatgaca	ttaaggtttg	gcgggttagt	tcaaataaaa	gcagttccga	cgatcatgcc	300
gagggtgcca	accataacaa	tcgcttgaaa	accatacact	cccctgagga	aagcgttttt	360
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ctacaatatg	cctgt					435

<210> 1779  
 <211> 470  
 <212> DNA  
 <213> Pinus radiata

<400> 1779						
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aagctggcag	cccgggcagc	caggaagatc	ctcgttccgg	ggaacaaagc	ccccagtcca	120
gcgtgcggga	gcaggacagg	ttcctaccca	tcgccaacat	tagccgcac	atgaagaagg	180
cgctgccggc	caacggcaag	atcgctaaag	acgccaagga	gaccgtgcag	gagtgtgtct	240
cggaatttat	cagcttcac	accagcggag	ccagtgcaca	atgccagcga	gaaaagagga	300
agacaatcaa	cggcgatgac	ttgctctggg	ccatgagcac	gctaggggtt	gaagattata	360
tcgagccctt	gaagggtttac	ttgctcatgt	acagagaggc	ggaggggtgac	aataagggat	420
cttcaaaatc	tggagtagac	caatatggaa	agaaagagtc	aaatgtacat		470

<210> 1780  
 <211> 359  
 <212> DNA  
 <213> Pinus radiata

<400> 1780						
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aagatggctg	gtgcagtcg	cactggcggg	aagggtacaa	tgcaaggaa	aaagaagaca	120
attcataaga	ctgccacagc	agatgacaag	agacttcaaa	gtaccttgaa	aagaataggc	180
gtgaataaca	tccctgctat	tgaagaagtc	aatattttta	aggatgacca	tgttattcat	240
tttgctaacc	caaagggtcca	ggcttctatt	gctgccaaaca	catgggtggg	tagtgggtca	300
tcgcaaacaa	aaaaacttca	agatcttttc	cctgggtatca	tcaatcagct	tggaccaga	359

<210> 1781  
 <211> 360  
 <212> DNA  
 <213> Pinus radiata



agaggcggac	gtttccgccc	tgctagactt	ggcgctggag	aagcacggac	gtctcgacat	360
agtgttcagc	aatgccggaa	tcccaggcgg	gttattctcg	tccatggcag	acgtcactgt	420
cgaggatttg	gaaaggggtca	t				441

<210> 1786  
 <211> 435  
 <212> DNA  
 <213> Pinus radiata

<400> 1786						
caataatgca	ggagtccectc	aattagtgct	caaccttggtg	tttgtcttgg	aattgagcag	60
gcttctggcc	aactggcttc	tgtecccttt	ctggatatca	gaccatcaat	atggcgttcc	120
tctggatcag	ccccctcgcca	attggcccat	cactccttta	actaatcctg	ctagtcttcg	180
ttattctggc	ctcatcttct	ccgcttctct	tgcgccctct	gcccctgttt	cccccaacc	240
tgcataccct	gaccagcaga	gcgttcgtga	gaatttgccc	gccgtcttcg	actatgggag	300
tctcagtgct	gacgcgcagg	aggtgggtgt	ctgtattgtt	tgtttcaatg	agttcgtgtc	360
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taagtggatc	gacta					435

<210> 1787  
 <211> 323  
 <212> DNA  
 <213> Pinus radiata

<400> 1787						
gttggttcatt	aagcatggag	ccaaagtcatt	aatcgagac	gttgcgaggaga	aagctggcag	60
aaagcttgag	gaatcacttt	ctcccgtgt	ggcaacttac	gtgactgcg	atgtgagcaa	120
agaaaaagat	gtgagcgcg	cgggtggatgt	ggccatggat	aagtatggcc	aactggacat	180
tatgtataac	aacgctggaa	ctaatagacag	ctttttggtg	aagagcgtgg	tagagtatga	240
tatggagcaa	ttcgatcgag	tgatgaatgt	aaacgtgaaa	ggagtgatgc	acggcattaa	300
gcacgccgcc	cgcgtgatga	tcc				323

<210> 1788  
 <211> 359  
 <212> DNA  
 <213> Pinus radiata

<400> 1788						
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gtttcagtc	gagttcaagg	gggtccgtgg	tcgaatccc	cagagggcat	tttccttcgc	180
gcctgcagcc	cgggcgctga	cagtcgtcgc	agaggccaag	aaggccgttg	ccgtgctcaa	240
aggaaattca	caggtcgagg	gtgttgctaa	tctctcgcag	gaagacaacg	gtcccacaac	300
agtgaagtc	cgtttgacag	gactgacttc	tgggaagcat	ggctttcatc	tacatgagt	359

<210> 1789  
 <211> 350  
 <212> DNA  
 <213> Pinus radiata

<400> 1789						
ggatagttgt	gctccgagga	aagcattgaa	ttggggataa	tggcggaac	tgtcacatat	60
tcattggccg	tgggtttcgt	ctgtttcgtt	ctgacgatgt	tactacttca	actctacaga	120
atagtgtgga	gggaggacag	tcgaggctac	aatttgccctc	ccggttccag	tgggtggcca	180
ttgattggag	agaccttgag	cttcattgca	gggattaatt	ccatttctaa	accacgcca	240
ttcattcaag	atcgagagca	aaggtatggg	aagatattca	gaacaaattt	gtttggaaga	300
tctcgaatga	ttgtgtctgt	ggaccagaa	ttcaacaagt	atattctgca		350

<210> 1790  
 <211> 337  
 <212> DNA  
 <213> Pinus radiata

<400> 1790

gatttaggta	gggtttttaag	gaagaaagac	gatccaagca	gtgggttttt	atcgagctcc	60
cacgcagttt	gaaggggtgtc	gcagcagaag	aagatcggat	tcgttcaccc	tcatcacaaa	120
agatggatcg	ggataagctt	atgaagatgg	ctgggtgcagt	tcgtactggg	ggaaagggta	180
cagtacgcag	aaagaagaaa	gcagttcaca	gagccacaac	aacagatgac	aaaaggctcc	240
aaagtacctt	gaagagggtta	ggagtgaata	ctattcctgc	tattgaagaa	gtaaatattt	300
tcaangatga	gatggtcatt	cattttataa	acccaaa			337

<210> 1791  
 <211> 315  
 <212> DNA  
 <213> Pinus radiata

<400> 1791

gtttgccatt	gaagaccaat	aaataattat	tgtgaagcag	cagcgtttta	atcagagatc	60
cagcaagaag	aggaccagga	aaaatcattt	gcagaacaag	aagataatcc	aagatgtcaa	120
gcacacgcag	ccctcagtg	gggtgcggag	aaacttgccg	ttgcgccgat	tgcaagtgtg	180
gagttgtgag	tattgcccct	ccatccgacc	aaacaagtgg	gggacatgca	tattgcaagt	240
gtggagaaca	ctgcagctgc	aatccatgta	actgttcaaa	gattgacgag	actgttagtg	300
ggaaatcctt	ctgta					315

<210> 1792  
 <211> 376  
 <212> DNA  
 <213> Pinus radiata

<400> 1792

gttttatcat	gcggatccag	tgcatgcct	gcgagcaggg	agctgcttca	gtgatatggt	60
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ttgccagcaa	acacaagaga	ttgcctcttg	tcggaacttc	cccaaagctc	tctcgctgcg	180
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aagactgcga	tgagtcctgt	cattctcgcg	acacattagc	agcaaaacac	caaagggtcc	300
tggccactgg	cattagggta	ggtctcaatg	ccctgtcatc	agaatctccg	ggctcaagcg	360
aatttgacaa	acagcc					376

<210> 1793  
 <211> 407  
 <212> DNA  
 <213> Pinus radiata

<400> 1793

gggaattccc	attctgcaca	tgcaatggac	aatggaatga	tggtatggat	agtttttagca	60
ggggtagtgg	caatggcagt	gtggatctt	ttggtacagc	accaacagcc	taagcagagc	120
cacaatgttc	cttgggagac	tcttccaccg	ggggctgtgg	gatggccctt	tctcgagagag	180
atcatctctt	tctatttccg	aacaccggat	tttgtgaagc	agcggcgggg	aaggtatggg	240
aatttgttta	gaacgttcct	gataggatat	ccaatggtaa	tctcaacaga	tcctgaggtt	300
aacaagttta	ttctgaataa	tgatggccgg	ctgttcgttc	ctgcatatcc	gtcgcattgg	360
tcacagataa	tcggagagtg	caatatcttt	gctgctcgtg	gagactt		407

<210> 1794  
 <211> 532

<212> DNA

<213> Pinus radiata

<400> 1794

cctgggtgcc	ttcgtcgtc	acttcacaat	caagttgaaa	gtgaaatcaa	tcgatctgaa	60
ggtgaagggtg	aaggtgaagc	gtattctcat	tcgcctcaca	ccgccatgga	cattacagca	120
cggcagatgt	tgcaagtgt	tcgccaccat	ttgctggaag	aggaagacga	aatggatgtt	180
cttgaggtag	ggggaaatta	tccattctcc	tcattcatcat	cttcattatc	cttctctccc	240
acagtgaagct	ccgatttttc	ccacgccact	gccagtggcc	catgccaaac	cagcgacagc	300
acatcattat	cagaagagaa	tgagagtgc	caaccctctt	ctgcttcttc	ttcttgtgta	360
tccactgttt	tacgaagcgc	agaggcggta	aatgtaaaag	taatgccaca	gccacagcca	420
caggaggagg	acagtcgaga	gaccatcaaa	gacaggcact	acagaggagt	gaggaagcgg	480
ccatggggta	aattcgcagc	tgaaatcagg	gaccccgcca	cgaagggggc	ca	532

<210> 1795

<211> 502

<212> DNA

<213> Pinus radiata

<400> 1795

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gaagggttacg	ctgcgaataa	cgatgcagaa	ctttgagcaa	aacccttcaa	gtggaacaga	120
agttgttcta	tttcgatctc	aaggaaaacc	cccgagggtca	ataccttaaa	atctctgaga	180
agacctccgg	ctcacggtct	acaataattg	tgcccattgg	tggagttgca	tggttcctcg	240
atctctttaa	ttattatgtc	gacggagatg	acgaggaagt	tttgagcaag	gaattgcagc	300
tggatgccaa	ggtattttat	ttcgatgttg	gggtgaataa	aaggggtcgg	ttcttgaaga	360
tttctgaagc	atctacatcc	tacagtcgca	gcacaatcat	tgtacctgta	ggaaacacaa	420
gaaaagatgg	ttgggcagca	tttagaaata	ttttaggaga	gataaatgaa	gcttccaaca	480
agcttctggc	ccatccgaac	at				502

<210> 1796

<211> 476

<212> DNA

<213> Pinus radiata

<400> 1796

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tggttcagaa	atggcggact	aaagtaatag	tgtgccccga	ggtctggtgt	tcgaatctcg	120
ttggcgtgaa	aggtcaaatt	tttctctcga	gtttcattga	ttctgaaaaa	ctggcatagc	180
tatggcgatg	agcaatggga	gattgtgtga	agatttggtat	aggattaagg	ggcgtggag	240
ccccgaggag	gacgcgtcgc	tgcaagggtc	tggttcagaaa	tacgggcccga	ggaactggac	300
cctgataagt	aaaggaatcc	cggggcgatc	cgggaaatcg	tgagggttac	ggtggtgcaa	360
tcagctgagc	cctcagggtg	agcacagacc	ttttaccccg	tccgaggatg	ctgctattct	420
gcaggccccc	gcgcagcacg	gcaacaaatg	ggcaacaatt	gcccagagccc	tccccg	476

<210> 1797

<211> 509

<212> DNA

<213> Pinus radiata

<400> 1797

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gctgtgagaa	ggctcact	aacaaagggg	cctggactaa	acaagaagat	gaccgcctta	120
tcgctcacat	tcgagcccac	ggcgaagggg	gctggcggtc	tcttcccaag	gccgcagggc	180
tgctgagatg	cggcaagagc	tgcaactgc	gatggataaa	ctacctgcgt	cccgatctga	240
agcgtggaag	cttcaccgaa	gaagaagacg	agctcatcat	caaactccac	tccttcgttg	300
gcaacaagtg	gtctttaatt	gcaggggagt	tgcccggacg	gacggacaac	gagataaaga	360



<400> 1802  
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tcaaaaccat ggcgtctaac ggacagctta atgcaggcac tggctgtgtt ggtgatctga 120  
ccaatgttgg agatcgacga ttggagggga aggttgcaat agtaacgggc ggggcagcgg 180  
gcataggaga agccattgtt cagttgttca ttaagcatgg agccaaagtc ataatcgccg 240  
acgttgcgga gaaagctggc agaaagcttg agcaatccct ttcacccgct gtggcaactt 300  
acgtgcactg cgatgtgagc aaagaagagg atgtaagcgc agcagtggat gtggccatcg 360  
acaagtatgg tcaactggac attatgtata acaacgctgg aactaacgac agcgttttgg 420  
tgaagagcgt aacagagtat gatatggagc aattcgatcg agtgataaat gtaaa 475

<210> 1803

<211> 382

<212> DNA

<213> Pinus radiata

<400> 1803  
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attgaaacat ctaaagccac agtgtccatt gtgccgtaag cagcttacag catctgatct 180  
ttttagttca ccaaaggttg ctgacgagaa tgaagttaca tcagaaaaag tagccaaaac 240  
tggttcaaaa attaatgcat taatagctct attgaaagag tcccaggatc atgatccaac 300  
tacaaaatct gttgtatttt cacaatttcg aaaaatgctg gatctcttgc atgaaccttt 360  
gaaaagtcag gcttctagtt tg 382

<210> 1804

<211> 533

<212> DNA

<213> Pinus radiata

<400> 1804  
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tgagccgtat aagaggataa tcaaaagaag ccggttgatt tctccgggat taaaggatgg 120  
atcaagaaaa ctggaacatc ggagctgatg gcactggctg ccaagctcca gaagggcaca 180  
ctctttgctc caataactgc ggcttttttg gcagttcggc aacgagaaac ctgtgttcga 240  
aatgttacag ggatctgatt atgaaggagg cccaagcctc atctgcaatg gccgccgttg 300  
agaagtcatt tgccgcgggt tctccgatgg aggaggaggc ccctctttcc aagccagatg 360  
ttttcgtcga acaaagccgt gcaccgatct cccagccgt agtccaagcc tcgtcagttc 420  
acttggtgta tataggttca tcttcttctc cacaacctcc tgccgaaact cctaaccggt 480  
gcttctcctg caggaaacga gtcggtctga ccggttcaa atgtcgggtgc gga 533

<210> 1805

<211> 549

<212> DNA

<213> Pinus radiata

<400> 1805  
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gccaggggtt gtaactgcga gcacattaga atccccaaaa agtacagaac aggagaatag 120  
tcttgagggtt gaggaagctg gtgacaaaaa gctccaggca catgtgaatg aaacgtcttt 180  
gaatgcagat caagaaaatt ccatcaagga gcttcacaac aagtatcctc gttactcgga 240  
agaacttttg acgaatatgc tggctgatca ggatggcgat ttgaaagagc tagaagcact 300  
cttaaaaaaca ttacaacgcc aagagattag agctgcta atcgaaaaatgt caggtccatc 360  
atcttcaaag gcaacagata acacagatgt ttccacggaa tcaccaccct caaagctaca 420  
gaatgcctct aagggcaaaa ccagaggaaa gagcgccaag aagagagaaa gggatacaac 480  
tttatccgta ggtagagttc acaaaacgcg tcgaaaaact gcttccgacg atgtgaaggc 540  
cgcttctaa 549

<210> 1806  
 <211> 397  
 <212> DNA  
 <213> Pinus radiata

<400> 1806  
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 gaagctgctc ttgctgccac accaccagaa gatgataaac ctacaatatt tgacaaaata 120  
 ctgcagaagg agattcccag tacagtgggt tacgaggatg agaaggtagt tgcattcagg 180  
 gatatcgcac cccaagcacc tactcacatc attatcatcc ccaaagtaag ggatggcttg 240  
 actggcctat ctaaggcaga agagaggcat gaggatattc taggtcacct gctatacact 300  
 gcaaaagtta ttgcaaagca ggaagggtta tctgatggct tcagaattgt cattaacgat 360  
 ggtcctactg gatgccaatc tgtgtaccat ttacata 397

<210> 1807  
 <211> 242  
 <212> DNA  
 <213> Pinus radiata

<400> 1807  
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 aaggaggat atgattctct ccgaatacat tcgaattcat ggcgatggcg gatggagaaa 120  
 tatgccc aaa agagcaggct ttaaagggtg tggaaagagc tgcagattac gatggctgaa 180  
 ctatcttcgc cccgacatta aacgtggaaa catttccctc gatgaggagg aactcataat 240  
 tc 242

<210> 1808  
 <211> 364  
 <212> DNA  
 <213> Pinus radiata

<400> 1808  
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 tctctctctc tgcatttctc aaactcaaat acctctctc tcacaatcat ggaaggcggga 120  
 gtcgtctttg aatctgtgca aaacccactg gatcgctga aactggaaa tatggaccat 180  
 ggttggtgcc attacaggag acgatgtcgg attcggggcc cttgttgcaa tgagatctat 240  
 gattntaggc actgtcacia tgaagccatg agccatctaa aggaccctt gctgcgccat 300  
 gagctcccaa gatacaaagt tgaacgggtt atttgttctc tctgtgacac tgagcaaaat 360  
 gtca 364

<210> 1809  
 <211> 265  
 <212> DNA  
 <213> Pinus radiata

<400> 1809  
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 aaaaatcttt actattcatt tgacttgagg gttgtacatt tcttgatat gtccactgaa 120  
 actaattttt tagatggaag tgatcaatat gctttcatag agcaagattt gaaaaagggt 180  
 gatagaaaca agactccatt tgtagtattt caaggctcacc gtcccatgta tacgactaac 240  
 tatgaactaa aagatgcgcc tctaa 265

<210> 1810  
 <211> 346  
 <212> DNA  
 <213> Pinus radiata



<400> 1810  
 cttgaatcga tcttgccctgc ttgtgccgga gcgcgcacag tgtgtgggtt gttctcgttt 60  
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 gtaagtcaga gtgccatggc cgtgcacact atgcagatgg cgagaatgga aatgaagcgt 180  
 gaaataggag tctgtgagca ggaagcttcg tcggccgtga aggaaacgca tttcagaggc 240  
 gtgaggaaaa ggccgtgggg gagattcgca gcggaaatta gagatccctt gaagaaaacc 300  
 agagtctggc taggcacttt tgacactgcc gaagaagctg ccgagc 346

<210> 1811  
 <211> 353  
 <212> DNA  
 <213> Pinus radiata

<400> 1811  
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 tggttcagaa atggcggact aaagtaatag tgtgccccga ggtctgggtg tcgaatctcg 120  
 ttggcgtgaa aggtcaaatt tttctctcga gtttcattga ttctgaaaaa ctggcatagc 180  
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 ccccgaggag gacgcgtcgc tgcagaggct tgttcagaaa tacggggccga ggaactggac 300  
 cctgataagt aaaggaatcc cggggcgatc cgggaaatcg tgcnagcttc ggg 353

<210> 1812  
 <211> 185  
 <212> DNA  
 <213> Pinus radiata

<400> 1812  
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 ggagattccc agtacagtgg tttacgagga tgagaaggta cttgcattca gggatatcgc 120  
 accccaacac ctactcacat cattatcatc cccaaagtaa gggatggctt gactggccta 180  
 tctaa 185

<210> 1813  
 <211> 337  
 <212> DNA  
 <213> Pinus radiata

<400> 1813  
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 ctaggaaggg ttttgaggct gaaagttttg ggctctcatt tgggagttac attcaaccaa 120  
 gctcatcata tggcgtccga gaaggaagct gctcttgctg ccacaccacc agaagatgat 180  
 aaacctacaa tatttgacaa aatactgcag aaggagattc ccagtacagt ggtttacgag 240  
 gatgagaagg tacttgcatt cagggatatc gcaccccaac acctactcac atcattatca 300  
 tccccaaagt aagggatggc ttgactggcc tatctaa 337

<210> 1814  
 <211> 340  
 <212> DNA  
 <213> Pinus radiata

<400> 1814  
 gttcaaggga gacgggatat tcagagtccg atcgccgccca tggccgtaga caccatacag 60  
 atggcgagag tgggtgtaaa aatgaagatc ggaggaggcg gctgcgagga agaggcgtcc 120  
 tcggctgtga aggaaacgca tttcagagga gtgaggaaaa ggccgtgggg gagattcgct 180  
 gccgagatca gagatccctt gaagaaaacc agagtctggc tgggcacttt tgacactgca 240  
 gaggaggccg ccgagccta cgataacgct gccagaaatt ccgcggggcc aaggcgaaaa 300

ctaatttttct tctgtctccc cacaatgaca ttagcaccaa

340

<210> 1815

<211> 433

<212> DNA

<213> Pinus radiata

<400> 1815

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gcctggacca	aagaagaaga	cgagcgtctc	atagcacaca	ttgaagccca	cggcgagggc	180
tcattggcgtt	ctcttcccaa	ggcgcaggg	ctgctgcgat	gtgggaagag	ctgcaggttg	240
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gatctcatca	tcaaactcca	ctccctcctc	ggcaacaagt	ggtcgcttat	tgcagggaga	360
ttgccagggc	gaacggacaa	ccgaaaataa	aaaattactg	gaacacgcac	atgaaaagga	420
aattgttgag	cag					433

<210> 1816

<211> 225

<212> DNA

<213> Pinus radiata

<400> 1816

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gcagatgtag	aaactcttct	tcctcaggtt	gatgaaacag	cttctgctga	tctgacagtg	120
ttcccaggtt	ttgttacctc	ttatgtacca	tacgggttcc	ccatatggca	cactttttaga	180
cccacaataa	ctcaaacttc	caatgtttat	aagccaacag	ctgta		225

<210> 1817

<211> 337

<212> DNA

<213> Pinus radiata

<400> 1817

gttgctgctg	cttctgcttc	tgcttctggt	actgctgttg	ctgctgtctt	gccagtgaac	60
gggtgctgctg	gggtcagatc	tagtggtgat	tccgagcatt	cggatataga	ggcgtctttt	120
aaagaggccg	aatgcagtca	ggccattggt	gaaaggaggc	ctcggaaacg	gggcaggaag	180
cctgccaatg	gtagagaaga	acctctgaat	catgtagaag	ctgaaaggca	gaggcgagag	240
aagttgaacc	agagggttta	cgcactccgc	gctgtggttc	ccaatgtgtc	caagatggat	300
aaggcctctc	tgttgggtga	tgccatttct	tacatta			337

<210> 1818

<211> 390

<212> DNA

<213> Pinus radiata

<400> 1818

gtttgttcga	acgatgaaaa	ccagctaaaa	caaagcgcag	ggattggcag	gattcgagca	60
gtggtccttg	gggcggaggt	gatagaagaa	gaagaaacct	accatataca	catacatata	120
ttatatacat	agacacatgg	gggctccgaa	gcagaaatgg	acttccgaag	aggagggagc	180
tctcaaagca	ggtgttgaga	agtatggcac	tggcaagtgg	cggaccattc	agaaggaccc	240
tgagtttgga	cactgcctcg	ccgctcgttc	caatgtggat	ttgaaggata	agtggcgcaa	300
tatgagtgtg	agtgtagtgt	gccaaggttc	aagggtataa	gtaaagactc	caagagtaaa	360
agctattgcc	tctctgcctt	attcatcaag				390

<210> 1819

<211> 367

<212> DNA

<213> Pinus radiata

<400> 1819

attcaaaatg	ggaaagaagt	tggagctgaa	acgcattcaa	aaccctaata	gttcacgtga	60
ttccttctcc	aaatgcaaga	ggggactgct	aaagaaatcg	gtcaagctct	ttgttctctg	120
tgatgctgaa	gtttccctca	tcattttatc	tgaaccgcc	aagatttacg	agtttgcaag	180
caacaagtcg	tgactagctc	ttgtgaattc	ttctgatcaa	gttagagatc	catatactga	240
tatataaaag	catactttca	cattgcaatt	ggagcagatc	tagatgcaga	agtgcaacct	300
tattatacct	aaaggccatc	agctgcaaat	caagacccat	tttctatctt	ttgagatcgt	360
gatacag						367

<210> 1820

<211> 487

<212> DNA

<213> Pinus radiata

<400> 1820

acgatcttca	ccctcgggtgc	gctctctgct	tatcccgatt	cccagccaac	tgctattata	60
ttcggagtac	tgtacttcca	gaactgggtat	cttcaagcac	caagaccatt	ttctgagctg	120
ttaaagatac	tatgagtgat	atggatcggt	catcatcaga	agattcagtg	gattctcaag	180
gtgatgtgaa	tgcaaactac	aagatgggtt	tctcggaaga	tgaaaaggat	ctcataagca	240
ggctgtacaa	tctactgggc	cagaggtggg	ctttgattgc	tgggcgaatt	cccggcagaa	300
ctgcagagga	aatagagaaa	tattgtagca	ggcgatatat	tagtgagtac	taggtcacat	360
gggtttctaa	tagtcaatga	agaagaaggg	tagaagcagc	cttgccctatc	taactgattt	420
aagtttgga	tatatatatc	gactttgagt	gatggccata	tcttctgggg	tttataagga	480
agtatgt						487

<210> 1821

<211> 319

<212> DNA

<213> Pinus radiata

<400> 1821

tttaagcatt	tcattgagtc	ttaggtcacg	gtttccaatc	ctggcaggtc	tcattattct	60
gtctctctgg	caagatgggg	agaactccct	gctgtgaaaa	aggctacata	aacaaaggcg	120
cgtggacca	agaagaggac	gatcgccctc	tcgctcacat	tcgagccac	ggcgaaggcc	180
gctggcggtc	gcttcccaag	gccgcagggc	tgatgcgatg	cggaagagt	tgagggtcc	240
gatggataaa	ctacttgctg	ccagtctcaa	gcgtggaaac	ttctcagaag	aagaagatga	300
gttcatcatc	aaactccac					319

<210> 1822

<211> 320

<212> DNA

<213> Pinus radiata

<400> 1822

gcaaagagtt	gcagattgct	ttggctgaac	tatcttcgct	ccgatattaa	acgtggtaac	60
atctctcccg	aggaagaaga	gctcattatt	cggttgcatc	gccttcttgg	aaatcggtat	120
gtagagaatc	gggggacatg	atctattcat	gcgccagaat	ttcacgattc	ctcatcgaat	180
tagtcatgca	atgtttgtgc	aggtgggtct	tgatagcagg	acgactgcct	ggcgaacag	240
acaacgaaat	caagaattac	tggaacactc	atatgagcaa	gaagccatgg	ctgtcaatgg	300
acgaatctca	gtccaatact					320

<210> 1823

<211> 338

<212> DNA

<213> Pinus radiata

<400> 1823

gtcgcgctcc	ttgctgcgag	aaaacccata	caaacaaagg	cgcttgaggt	aaagatgaag	60
atgaagcact	cgttgcatat	attcaagccc	atggagaagg	cagttggcgt	tcccttccca	120
aggccgctgg	ggtgcagcgg	tgtggcaaaa	gctgcaggct	tagatggata	aattatctcc	180
gtcctgacct	caaacggggc	aatttcagcc	cagaagaaga	tgagatcatt	atcaaacttc	240
attctatgtt	gggtaacaag	tggtctttga	tcgcaagcaa	attgccaggg	cgaacagata	300
atgagataaa	gaattactgg	aacactcaca	ttaagaga			338

<210> 1824

<211> 332

<212> DNA

<213> Pinus radiata

<400> 1824

gccgaggtga	ggaggcatta	cgagcttctt	gttgaggatg	tgactgtgat	tgagtctggc	60
cggttgctt	tgcttgccta	ttctgaaaat	tcgtatacac	cgcccgatt	gatgtcagat	120
cagttggcgg	atctcacaaa	acagcaggcg	gtttctgtga	aggctccctc	ggccaaggca	180
tccgaacagg	agcgcaaaaa	gggcgtgccc	tggaactgaag	aagagcacag	actcttcttg	240
atgggattga	ataaatatgg	caaagggtgat	tggaagaagca	tatcaagaaa	ctttgtgggc	300
tcacggacac	ctactcaagt	tgcaagccac	gc			332

<210> 1825

<211> 301

<212> DNA

<213> Pinus radiata

<400> 1825

accgtcgaga	gagcttcata	tctaaccaat	aataacacct	gtatggcttc	atagcttcac	60
agcaacaggg	caccatgggc	cgagctcctt	gctgggataa	aatgggagta	aagaaaggcg	120
cctggactct	agacgaagat	aaaataactcg	tcgattacat	taccaaacad	ggccatggca	180
actggcgcg	actgcccagg	caagcagggc	tcttgcgatg	tggaagagat	tgctgcctgc	240
ggtggacgaa	ctacctgata	cccgcacatca	aaagagggaa	ttttattcca	gaagaggaat	300
a						301

<210> 1826

<211> 498

<212> DNA

<213> Pinus radiata

<400> 1826

tttgcattca	attcttcctg	tatcatctaa	ttgctcagtc	tagcaattac	gcaatctcgg	60
tccccagtca	tgtctgacga	agaggttaat	gcaactgctg	cctctgtggg	caatctgacc	120
ttgctgctgc	atgcattctca	gcgacgattg	gaaggcaagg	tcgcaataat	aacgggcgga	180
gcatctggca	taggagaagg	catcgttcgg	ctcttcacaa	agcacggagc	cagatcata	240
atcgagaca	ttgcagatga	aaccggcaaa	attctggccg	aatccctttc	gcctccggcc	300
acttacgtgc	gctgcgatgt	gagcaaaagag	caagacgtca	gcgctgcggt	ggatttgcc	360
atggagaagt	acgcgcagct	ggatatcatg	tttaacaacg	caggaatcgt	cgatacgggt	420
aatgtttcaa	ggggagtggc	agagtacgag	atggagcagt	tcgaccgagt	tatgagcgtc	480
aacgtcagag	gggtgatg					498

<210> 1827

<211> 551

<212> DNA

<213> Pinus radiata

<400> 1827  
 cgtggctctt cccggcagac ctagtaagcc gactactgta aatttattct tttagggtta 60  
 cagaagaaga aaatacaaga tgggcagatc tccttgctgc tcaaaagaag ggctcaaccg 120  
 tggggcctgg accaaaaggg aggatatgat tctctccgaa tacattcgaa ttcattggcg 180  
 tggcggatgg agaaatatgc ccaaaagagc aggtcttaaa cgggtgtggaa agagctgcag 240  
 attacgatgg ctgaactatc ttcgccccga cattaaacgt ggaaacattt cccctgatga 300  
 ggaggaactc ataattcggc tccatcgccct tcttggcaat cgatggtcgc ttatagcagg 360  
 aagattacca ggtcgaacag acaacgaaat caagaactac tggaaactc atatgagcaa 420  
 gaagctgctt ccattgaacg aatctgaacc caagactttg cctgtcccca agaggaggtc 480  
 gcaatctcct tctcccctgc aaaatcgagt ctttaaagcc aaccctgtga aaataacaac 540  
 ggtggtcagt c 551

<210> 1828  
 <211> 256  
 <212> DNA  
 <213> Pinus radiata

<400> 1828  
 ctgaaattcg gatgccgaaa tcccatgaga agatatggct gggatcctat aataccgccg 60  
 agcaagccgc ccgtgcttac gacgccgctg tgtattgtct gagaggacct gccgccaac 120  
 tcaattttcc agaaaccgtg ccgggtattc cgtctgcgc tccctttcc cggcagcaaa 180  
 ttcagcatgc agccaccaga tatgccttgg gtgaaatccc tttgatttcg ccctctctgc 240  
 aaaatattga ctcgag 256

<210> 1829  
 <211> 372  
 <212> DNA  
 <213> Pinus radiata

<400> 1829  
 gcagattctc aacagaattg ggaaagtttt gtgaatattg aagatggctc agtgccatga 60  
 aatcattgaa agtcgttgca gagacagcca tggcgcatca gatctgaagc tgtttgccat 120  
 ggccgcgggt ctggtgacga gcaccggagg agtatgtttg ccggttctgt ttgccagata 180  
 ttcccgaggg ctcaaatttt acggcactct tctggtactg gtgaaatgtt tcgctgccgg 240  
 agtgattctg tccacaggat ttgtccacgt catgccggaa gccttccgcg ctctggaaag 300  
 cgactgcctg ccggatcatc catggcacca gttcccgctc gccggactcg tggccatggc 360  
 cggggcaatc ct 372

<210> 1830  
 <211> 486  
 <212> DNA  
 <213> Pinus radiata

<400> 1830  
 agcgggtggg gatthagccg agggcgaaaga ggaggacgaa gaagggttc gtaacaaacg 60  
 tggcgattga tcctacctta gcctgaaaat gctgtcagga ggctacgcaa ccagatccga 120  
 cactactact gtcaacaacg gatccgctaa tggcccaata ggaagtgtc cccaagaat 180  
 taactcgata caaaataata atccaggagc tgtcaggcct ggctggggaa ccatgccct 240  
 tcacatgaat ccttatcatc cccaatcaat gcctcttccg cccccaatg gtatgcaggg 300  
 tcagcttggt tgcatggat gtagaactct tcttgtttat ccgcaagggt caccaaagt 360  
 ttgctgtgca gtatgcaaca cagtcactcc agttccacct cctgggacag aaatggctca 420  
 gctaattctg ggacgttgct gtacattgct aatgtatgtt cgtggagcaa ctagtgttca 480  
 gtgctc 486

<210> 1831  
 <211> 330  
 <212> DNA

<213> Pinus radiata

<400> 1831

gtttttccgc	aggaagtttt	gatttgagta	ggaaatcctt	tggcctcctg	gagctttgat	60
ttgctcagga	aaccctagcc	cttcggttcc	tgaagctttg	cttttcgtag	gaaacccttt	120
ggcaccggta	ggcgatggct	cccagcaaca	acagaagaga	cgacaatgga	gcacgaggag	180
ttcacttcag	gggcgtcagg	aagaggccct	ggggtcgata	cgcggcggag	attagggatc	240
catggaaaaa	agttcgtcct	tggctcggca	cctttgacac	ggccgaggaa	gccgcccggg	300
cttatgacac	tgccgctatc	tccctcagag				330

<210> 1832

<211> 413

<212> DNA

<213> Pinus radiata

<400> 1832

aaatctgact	atcgggatag	tgatgatgaa	ggaggaggta	ctgttcgaga	aggaaaggat	60
ctgcaaacct	caaatttcat	cgattatttt	ggtcaaagta	atcatacaga	agaagcagaa	120
aatgagcatg	atgcatcagt	ggataccaaa	gggcccctgg	aatccagcaa	tgaagtcggc	180
catcctacca	cataccccga	atcttcttca	ttgtcagcgc	aaggctctga	gcctcagatt	240
ttttcctgta	attactgccca	gagaaaattc	tacagctcgc	aggccttagg	aggccatcag	300
aatgctcaca	agcgagaacg	caccttggca	aagagggggc	aaagaattgg	ggcttttcaa	360
cacaggtaca	taagcatggc	atccctgcct	ctccatggct	ctacagaatc	agc	413

<210> 1833

<211> 260

<212> DNA

<213> Pinus radiata

<400> 1833

gctatttgca	gcatttcctt	ccatccgtac	ccaaaagatg	ctgacaaaca	tttactagca	60
agacagactg	gactgaccag	aagccagggt	tcaaattggg	ttataaatgc	acgtgtccgc	120
ctttggaaac	ccatgggtgga	agaaatgtat	atggaggaac	ttagagaggc	cgaaacacag	180
aatcatgcag	cagattcgaa	ggtaacaaca	gaaagtgggc	aaaacaatga	agaaacgggtg	240
tcaaaggaag	gagctgggaa					260

<210> 1834

<211> 338

<212> DNA

<213> Pinus radiata

<400> 1834

aattgaatcg	gccatgggtt	tgtatgaatt	gttacatgta	cagcagattc	agcaaataca	60
gcagcagcag	tttcaattgc	aacaacaaca	aatagcagca	gcggcttcaa	tccaccatat	120
gggtcgaaac	cctctgggtc	ccagagctca	gcccattgaa	cttcatggca	gcagcctatc	180
aaagccggct	aagctttaca	gaggcgtgag	gcagcgccac	tggggtaaat	gggttgacaga	240
gatcagggtta	cccagaaaaca	gaaccagggt	atggctgggg	acttttgata	ctgcagagga	300
agcggccatg	gcttatgaca	aggctgctta	caggctga			338

<210> 1835

<211> 240

<212> DNA

<213> Pinus radiata

<400> 1835

gcttattgga	atgcctgaca	ctaactatgg	aagcgaacag	acaaatgctt	gcaaaaaaca	60
gaaaagaata	cgttccaagg	attcaggaga	agatgggtgaa	gatagacaga	gataacatcc	120

tttcattgtt	actgagcccc	gtgaacttgc	aagagggaaa	aagaatgggt	tagactatct	180
ctttgatctt	tatgaacagt	gcgggaaatt	tctgctggat	gtgcaacata	ttgcgaagga	240

<210> 1836  
 <211> 349  
 <212> DNA  
 <213> Pinus radiata

<400> 1836						
gataaatcca	gatgaggttt	tagcagtcaa	ctttgcattc	caactgcata	acatgcccga	60
tgaaagtgtg	tctacaaaga	acctacgtga	ccggcttcta	aggatgggtga	agtctctcaa	120
ccctaaagtg	gtcacagtgt	tagaacaaga	ggttaacact	aatactgcac	ctttcttacc	180
ccggttcatg	gaagcattaa	actattactc	atcagtgttt	gagtctctag	atgctacaat	240
tccaagggat	agtagagatc	gtatgaatgt	tgaaaaacag	tgcccttgccc	gagacatagt	300
gaacataatt	gctttgtgag	ggggaagaaa	gggttgagag	gtatgaagt		349

<210> 1837  
 <211> 457  
 <212> DNA  
 <213> Pinus radiata

<400> 1837						
gaaaagtatg	ttcaagtttt	ttccattcaa	acatatcctt	gttggaggga	ttcggaaaccg	60
tctccggctg	tcttcaacca	gtctgacccc	aactcgcagt	ctcttgact	ctcaaagtat	120
aaatttttca	agaatggcta	attcgaatcg	aggatgcttc	atatgcggtt	ctgaggatca	180
tcgaaaagcg	gactgtccca	cacccgacaa	acttacctgt	tatcagtgcg	gtggagtggg	240
ccatcagctc	cgggactgct	cttcctccga	gaagcgcaaa	acctgctaca	aatgtgggtga	300
agagggccat	atctctcgcg	actgttccaa	tgcgccaacc	tctgagtatt	ccggtggtaa	360
ttccggcacc	gaatgttata	aatgtggtaa	attgggtcat	atctctcgct	cctgtccgac	420
aatgagtca	actgctgact	atgctagggc	tcctagc			457

<210> 1838  
 <211> 395  
 <212> DNA  
 <213> Pinus radiata

<400> 1838						
ctgaaatata	gttaaattca	ctcttttggt	ctcagttact	gcgtcgccaa	tatggaaaat	60
ctccccaatc	agcaacctga	ccttgaaatt	gctcaaacac	acgaggatcc	cgggtcccgc	120
caatttaagg	gaattcgact	gcgaaaatgg	ggaaggtggg	tatcggaat	ccggataccc	180
aaatctcgag	agaaaatatg	gctgggctct	tacacgactc	ccgagcaggc	tgcccgtgct	240
tacgacgccg	cagtgtattg	tctgaaaggg	cccaacgcc	aattcaactt	tccggaaacc	300
gtgcacgaca	ttccgtctgt	gacttctgtt	tcccgtcagg	aaattcagca	cgccctccctc	360
aatatgcct	tgggccagcc	ccctccgagt	ttgca			395

<210> 1839  
 <211> 395  
 <212> DNA  
 <213> Pinus radiata

<400> 1839						
gctaacacag	cccttatata	tcacatcatggg	aagcttcttg	cacttcaaga	ggcagataaa	60
cccttatgcac	ttagagtcct	tgaggatggg	gatttgcaaa	ctcttgggct	aatggattat	120
gataataaat	tagcacactc	cttccactgca	catccaaagg	ttgaccctgt	tacaggggag	180
atgtttacat	ttggttacca	acacaagcct	ccctatttaa	cttaccgggt	tggtacaaag	240
gagggataaa	tgcttgatcc	agttccctata	acacttccca	aacctgtcat	gatgcatgac	300
tttgccataa	ctgataacta	tgcaatcttc	atggatcttc	ctctctattt	ttctccaaag	360

395

<400> 1840

<210> 1841

<400> 1841

<210> 1842

<400> 1842

<210> 1843

<400> 1843

585



<210> 1844  
 <211> 384  
 <212> DNA  
 <213> Pinus radiata

<400> 1844  
 ccggttccta gttcgaatcc ttgccctaac gcagtcctcgt gttttaagac tcaatcttta 60  
 gtgactcccc cgcaacatgg ttaagccctt gccaaaacag agcagcccga gcggatcgga 120  
 aaactgccaa ataaagtcgc ggcagttcaa aggaatccga ctgagaaaat gggggaaatg 180  
 ggtgtcgga attagaatgc cgaattccag ggccaaaatc tggctgggct cctacgactc 240  
 cccggaaaaa gctgcccgcg cctacgactt tgcgttgtac tgtctaagag ggtcgaaggc 300  
 cacattcaat tttcccgact ccccgccgga aattccatgc gcctctgacc tgtcgccgcc 360  
 gcaaattcaa gccgccgcg ccag 384

<210> 1845  
 <211> 171  
 <212> DNA  
 <213> Pinus radiata

<400> 1845  
 acatcccgctc ttcactttgt tgatcaacaa ttacgacaac agcgagctct tcagcagcta 60  
 ggaatgatac agcagcatgc ctggagacca caaagagggc ttccagagag ggccgtttct 120  
 attctccggg cttgggtatt tgagcatttc cttcatccgt accccaaaaa t 171

<210> 1846  
 <211> 436  
 <212> DNA  
 <213> Pinus radiata

<400> 1846  
 agattgatca aacacaaata ccgtaaaatc gcagcgaaga tccaaaattc caccatgggg 60  
 actgtggcgg aagatggcag caagggttac acggccgtaa atcccatcc caaaaagggc 120  
 gtcgcctcgt ggctgggtga catgggtggag aaactgggtg ttgaaacttc tgcgttgtat 180  
 agttcgaaga agcctctgca ttttcttttg gggaacttcg ctccagtctc ggaaactgcc 240  
 cccaaatcgc acctgcatgt tgttgggcaa cttcctagtt gcttggatgg agagtctctg 300  
 cgcgttggtc ccaatccgaa attcgcaccg gtagctggct atcactgggt tgatggagat 360  
 ggaatgatcc atgggtctgag aattaaagat ggtaaagcca catatgtgtc acgttatgtg 420  
 aagacatcac gcttga 436

<210> 1847  
 <211> 303  
 <212> DNA  
 <213> Pinus radiata

<400> 1847  
 ggaggcgagc cattctttgt tccccgctcc tcggatcctg cggcgccgga agacgatggc 60  
 tacatctca cattcatgca caacgaggag acctcgaagt cggagcttct tattttggac 120  
 gccagatctc cgaccctgga acccgtaggc acggtaaagc tgccgtccag agtcccatac 180  
 ggattccacg gcacattcat cacttctgaa gagcttgcca agcagggtgc gtgaagacgc 240  
 gctgtcttcc gcccttcttg ctttcttgat taccctacaa cacctgggtc tgtactttct 300  
 tta 303

<210> 1848  
 <211> 551  
 <212> DNA  
 <213> Pinus radiata

<400> 1848  
 gcgattttcga gtgctgtaag caggcaacga cgcctgtttt gcttttagagt ttaacagaaa 60  
 agaagaatgt gtggaggtgc tatcatctcg gactttataa taccctctgc gagccgaggc 120  
 cgccgggtga ctgccaggga tatatggccc gattttgata agttctctga gtttattaat 180  
 ggaggtgctg cgggtggagtc ctttgatgtc agcgttgatg tcgatgacga cgaggaggat 240  
 tccgacgatg acgagttcct cgattttgag gagagctatc agaacaagaa gaagaagcag 300  
 caacagccga tatccccac caagggtttc gagcttcctt tagctcgggg tcttgatgga 360  
 ccggcggcca agagcgcggt gagaaagagg aagaatttgt tcagagggat caggcaacgt 420  
 ccatggggga aatgggctgc agagatcagg gatcccagaa aaggcgctag ggtttggctg 480  
 ggtaccttta atacggcgga ggaagctgct cgggcttatg atgcagctgc acgaaagatc 540  
 agaggtgaaga a 551

<210> 1849  
 <211> 527  
 <212> DNA  
 <213> Pinus radiata

<400> 1849  
 gaacagtcga gcctcggtgc accctcctca gtcaccacaa acagcactgc agcgaaagga 60  
 caagggcctg ctgatactga gtctcaacca gacctaactg ctgccgagaa gccttcaatg 120  
 gagcccaaga aaccgccaag aaagaaaggt cagaaacgaa acaggagagcc cagatttgca 180  
 ttcgatgacca aaagtgatgt ggatcatttg gaagatggct atagatggcg caaatatggc 240  
 caaaaggctg tcaaaaacag ccctttcccc aggagtact atcgttgac aaatggaaaa 300  
 tgctcagtga agaagagagt ggagcggttcg tcagaagatc caggaattgt gattacgaca 360  
 tatgaaggac agcattctca tccaagcccg gccatattgc gtgggtcagc agaatcccaa 420  
 tcccactttt cagatcaaag attgaattct cccttcactc aaacgccatt gatcagattc 480  
 cctccccacc caatgatgat gagtagtact aaccagggtcc cagctgc 527

<210> 1850  
 <211> 226  
 <212> DNA  
 <213> Pinus radiata

<400> 1850  
 gagagaaggt ggaagtacag caatagaaag tgacttgaaa agtgaaaatc ttgaagaaaa 60  
 agaagcgaag gcaagtgaag atgaagataa gatgctgaaa aaaccagaca aattgttacc 120  
 ttgtcctcgc tgtgacagtt tagataccaa attctgctat tacaataatt acaatgtgaa 180  
 ccagcctagg catttctgta aaaattgcca gagatattgg actgct 226

<210> 1851  
 <211> 236  
 <212> DNA  
 <213> Pinus radiata

<400> 1851  
 atggccggag accacgcttg ccccgctctgc caagcgactt ttactcgccc gcaacatgtc 60  
 gcacgacaca tgcgctccca caccggcgac cgcccgtaca agtgctccat ctgcaccgac 120  
 tcgtttggcc gcagcgacct cctgaagcga catgagaaga agatgcactc aaacgggcag 180  
 agcgcagcga gcacgcccac tggggccaggg cagaacaaat ttgatagcca gtttac 236

<210> 1852  
 <211> 455  
 <212> DNA  
 <213> Pinus radiata

<400> 1852

ccacaacgaa	taaatgcaaa	tgctgttctg	gatagctgaa	cccaccaact	catcagcata	60
aattttctcca	gcagaaatcc	agcctcccac	tcgcgcgcat	aaattttcttc	aacggaaatc	120
cagccggccg	ctaaattctc	tgactgaca	aaagcccaca	ggctaacaga	ttccgacatg	180
gatcgcccca	ttccctggcc	atctgcatac	acagaaatct	agactttgaa	aatctttcta	240
aattctgtat	ggagccctga	actgtagggtg	caggggttcga	ttaccgctat	ggatgaggcc	300
gcgccctgcca	aggctcctct	cccctgtgac	tactgtggcg	aagcgaatgc	agttctctac	360
tgccgagctg	actccgcca	gctctgcctg	ccatgtgacc	accacgtcca	ttctgccaat	420
gccctgtcca	agaagcatgt	ccgatcccag	ctctg			455

<210> 1853  
 <211> 324  
 <212> DNA  
 <213> Pinus radiata

cttgaatgtt	gttgcattgtg	agggatcaga	aagattggaa	aggccagaaa	cttaciaaaca	60
gtggcaggga	cggactcagc	gtgctggatt	tgtacagctt	cctctggatc	gtagtattct	120
ctctaaatcc	agggataagg	taaaaaccat	ttctatcata	aggatttttg	agtggacgaa	180
gatggtaatt	ggatgctatt	gggctggaag	ggaagaacta	ttcatgctct	gtctacgtgg	240
agaccttcga	catgatttgg	cgatggagaa	tttttctctc	tgcaaagagt	aaggcatgat	300
acatatttgt	gattctgcca	aggc				324

<210> 1854  
 <211> 316  
 <212> DNA  
 <213> Pinus radiata

acgggctctc	caacaattag	gcatgattca	gcagcatgct	tggaggccac	agagaggact	60
tcccagagcga	tctgtttctg	tcttacgggc	ttggctatct	gaacattttc	ttcatccgta	120
tccaaaagat	gcagacaaac	atatgctcgc	gagacagact	gggcttacca	gaaatcagggt	180
ctcaaattgg	tttataaatg	cacgtgtacg	cctctggaag	cctatgggtg	aagagatgta	240
tgtggaggaa	acaaaggagg	cagaagtaga	ccatggatca	aatgataaaa	caggtaagga	300
gagtggcgag	aaaaaa					316

<210> 1855  
 <211> 393  
 <212> DNA  
 <213> Pinus radiata

cggaaaatca	cccccttgcg	ttgcgcacca	tcgccccgac	gtaccgaagt	agcggacacg	60
gttccgtaat	attgtacagg	cgcgcgcccc	ccccacagc	gacgacagac	acacattctt	120
taacgatcca	tctccttctt	gacgaaacct	ccacccccaa	cgattgacga	tgcccaaggc	180
ggacagccag	agcggatccc	gagattctac	ggtcggcccc	gctcaaggta	cgctgaagcg	240
gaaccaggcg	tgccaccaat	gtaggaagcg	gaaactgaaa	tgcgacgcca	aaagaccttg	300
ctcgacttgt	gtgaggtcac	acaaccacgc	catcaccac	gctggtccag	acgctgtttt	360
gccgcccttc	ccagaatgta	cctttgacga	agt			393

<210> 1856  
 <211> 359  
 <212> DNA  
 <213> Pinus radiata

ggaaagtcca	acatagaaat	cttctgtgca	ttcatagaat	aaatattcta	caggctgcac	60
tgtaatttag	gcgagaaatc	gaataaaata	tacatttgtt	tgttttacgat	ggagttggca	120

gatgagcatt	ccatcctccg	ctataagaaa	cccaagctct	ccaagaatgt	cgtttccgag	180
cgccgccgaa	ggcagaaaat	gaacaagctt	ctctacactc	tgagggctct	ggttcccaat	240
atttccaaga	tggacaaggc	atcgatttta	gcggacgcca	tcgaatatgt	ggagaagctg	300
aagcaacagg	tggagagagc	tgagtctgac	gttcaatcca	ccaacgtctc	ggctctatc	359

<210> 1857  
 <211> 459  
 <212> DNA  
 <213> Pinus radiata

<400> 1857						
ggaaggcaat	gagagtgatc	tcctcaaggg	aatgaagaag	gcaaggcgtg	agagaggatc	60
aacagcaaa	gaacggatta	gtaaaatgcc	tccctgtgct	gctggaaaac	ggagttctat	120
ctacagaggc	gtcacaaggc	atagatggac	aggacgatat	gaagctcatc	tttgggacaa	180
aagtacttgg	aaccagaacc	aaaataaaaa	gggcaagcaa	gtgtacctag	gtgcctatga	240
tgaggaggag	gctgcagcca	gagcttatga	ccttgccgct	ctgaaatatt	ggggctctgg	300
aactctcatt	aatttttctg	ttagtgacta	tgctagagat	attgaagaga	tgacagagcat	360
ttcaagggaa	gatttctctg	cttctctcag	acggaaaagt	agtgggtttt	caaggggaat	420
gtcaaaaatac	ccgtggactg	gccaagcaat	cacaaactg			459

<210> 1858  
 <211> 368  
 <212> DNA  
 <213> Pinus radiata

<400> 1858						
aaaaaggcgt	cagaatgggg	tgagtctgta	gtaagtacaa	gcgaaaacag	taatgacttg	60
gatcctccta	cttattctga	aacctcttcc	cctgctcaag	gatctgatcc	tcgggttttc	120
ccctgtaatt	tctgtcaaa	naaattctac	agttctcaag	cattaggagg	tcatcaaaa	180
gcccataagc	gtgagagaac	tttggctaga	agggcacaga	gaatggggtc	ttttgcacaa	240
agatattcaa	gcatggcatc	acttccactc	cacggttcct	cggaaaacaag	ttggacgccc	300
agtcgggttt	tagggataaa	agcacattct	ttgattcaca	aacctttccc	tgaaggatgat	360
aacctgcc						368

<210> 1859  
 <211> 497  
 <212> DNA  
 <213> Pinus radiata

<400> 1859						
ggcaagaccg	tctggaagag	gatgttacgg	gaagagagca	aaagcgttac	cgtgtctgcg	60
acccggagct	ttcggagcga	accgtggtag	taatgggggc	agacccgcac	gaatccggag	120
tccgtctcgt	gcacacgctg	atggcctgcg	cagaagcggg	gcagcgcggg	aatttggcca	180
tcgcgcggga	aatgggtgaaa	gaagtgagaa	ttctggcttc	agcacagggc	ggggcaatga	240
gcaaggctgc	cacatatatt	gccgaggctc	ttgcccggcg	aatctatggg	tttctccctc	300
aggacacctt	gcggttcaac	cagaacgacc	ccttgtccga	ttttctgcaa	tttcatttct	360
accaaacctg	cccctatctc	aaattcgcgc	acttcatagc	caaccaggcc	attctggatg	420
ccttctccgg	gcaccaacag	gttcatgtca	tagatttcaa	tctgaaacag	gggatccaat	480
ggccggcctt	gatacag					497

<210> 1860  
 <211> 254  
 <212> DNA  
 <213> Pinus radiata

<400> 1860						
gagtaggagg	cggcggcgga	ggcaagggaa	gcccgtagag	aggcgtcagg	atgagaaaat	60

ggggaaaatg	ggtttctgaa	gtgagggagc	cgaacaagcg	gtctcgcata	tggtcgcgct	120
cctattccac	tcccagggcc	gctgccaggg	cctatgatac	tgccgttttc	tacctcagag	180
gaccctccgc	gactctcaat	ttccccgagg	aagcacgtaa	ggagcagcag	agcgacctca	240
ggctttcgca	gctc					254

<210> 1861  
 <211> 515  
 <212> DNA  
 <213> Pinus radiata

<400> 1861						
catcttctcc	ttacaaaagt	agctcccctc	ttgactccag	gcggtcttcc	cagtccataa	60
cgatacggat	tacaccacg	caccccatgt	cttccacctc	atcgatttct	tctccctccc	120
ctgacacacc	atcacagtct	gccgctgtgc	gcccgcacatc	taccgagac	gattcttccg	180
tcatggaacc	tccacgtaag	cgagccaggg	ctgatcttaa	cgctgaacag	cgaagagagg	240
ccaggggcca	ccgtaatcga	attgccgctc	aaaactctcg	cgataaacgc	aaggcgcaat	300
tcactttacat	ggagcagcgc	gtggcacaac	tggaggaaga	gaaccaacga	ctacgagcag	360
gcatgggcct	ctctcaattc	acgccagccg	acaacgacaa	gttcgtcagc	ctcgagagag	420
aatcagtaca	ggcccgcgag	aacagagagc	tcaaggagag	gatcaagagt	ctagagagcg	480
ggtggtcggc	cgtcatacaa	gcgttgccag	cctca			515

<210> 1862  
 <211> 532  
 <212> DNA  
 <213> Pinus radiata

<400> 1862						
agtttgctgc	tctacacctg	tggttgcaag	cgtttgagac	ttcaagaggc	aaggtttggt	60
ctgtgattaa	ttcatggcgg	cggcgccgac	gactacgttg	ggttggtcga	aggtggattt	120
gatacggctc	atgcggctgc	gagagcttac	gacagggcag	ctatcaagtt	tcgaggagtt	180
gaagctgata	taaattttac	tctcaccgac	tatcaagaag	atttagacca	gacgagcaag	240
ctctctaaag	aagagtttgt	gcatattctc	cgctcgtaaa	gtactggttt	ctctcgtgga	300
agttccaagt	atagaggcgt	taccctgcac	aaagtgtggc	gatgggaagc	cagaatgggt	360
caattcctag	gaaaaaagta	tatatatttg	ggattatttg	acagtgaaga	ggaggctgca	420
agggcatatg	ataaggctgc	tatcaggtgc	aatggaaagg	aggcagtaac	gaactttgat	480
cctagcttat	atgaaaaaga	aattcttgaa	gaaagaagag	agagtcagac	tt	532

<210> 1863  
 <211> 497  
 <212> DNA  
 <213> Pinus radiata

<400> 1863						
ggcacgagcn	cttctgattt	tttggccgag	ggttcgttgc	agaaaggcca	agggcaagta	60
ggaggcgata	gacctacttg	aaaatggagg	tgtctgcgaa	gaagcgaaag	gccgaagaag	120
cgaatggcgt	ggtcgatata	gccgtggaag	atgctcgga	aatgttgga	cccttcaccc	180
gagagcaact	attagatatt	ctgcaggagg	cggcgacgca	gcacctggac	gtattggagc	240
aggtgcgcgc	catcgccgac	aaggatcctg	cgcagagaaa	gctgttcgtc	cgtggccttg	300
gctgggatac	aaatacagag	tctctcaagg	ccctcttttc	ccagttcggg	gaactggagg	360
aaggggctcgt	cattatggac	aagaacaccg	gtaagagtaa	gggttacgga	ttcgttactt	420
tcaagcacat	ggacgggtgt	cttaatgccc	taaaggagcc	cagcaagaag	atcgacggcc	480
gcatgactgt	cagtcag					497

<210> 1864  
 <211> 308  
 <212> DNA  
 <213> Pinus radiata

<400> 1864  
tgcttagatg gagtttacgt ccgaaatgga gcgaatcccc ggttcaaacc ccgaggaggc 60  
caccatttat ttgacggcga tggaaatgata catgccgtga cgctgcgaca cgggaaggct 120  
agttacagtt gccgggttcac ggagcccgaa aaggctcatt agcgaggaaac gggcggggcg 180  
gcagttttac ccgaagccca tcgggcaact ccacggccac ggacgggctg gtgcgcctgc 240  
tgctgcatgg tgcccggggg ctctgcggga ctggtcaaca ccgggaaggg catgggcgtg 300  
gctaatac 308

<210> 1865  
<211> 395  
<212> DNA  
<213> Pinus radiata

<400> 1865  
aagcgggtggc agattgttca caatgatttc aagtggcgct ctttcttctg cagcagagat 60  
tttgaaggca tatcagctgc tcttggttgc tactcctttc aagaaaatat ctcatattat 120  
gacttatcaa acggttctta atgtagcaga gggagaaacg aggttgcaca ttgttgattt 180  
cggaattctg tatggtttcc aatggccttc tctgattcaa tgtctggcaa atcgtcctgg 240  
tggtcctccc atgcttcgca taactggaat cgagtttccc caacctggat ttagaccagc 300  
agagagaatt gaagagactg ggcgcagact ggaagactat gcaaaatctt tcggtgtgcc 360  
ctttgaatac caggctattg caacaaagtg ggaga 395

<210> 1866  
<211> 340  
<212> DNA  
<213> Pinus radiata

<400> 1866  
gttaacttga aaattgaaca cttctcaccg agcagttctg atatggaaaa actggagatc 60  
gaagagttgg ggagtcacca ggggtgatgta aaatctttgc ttattgaatg tgctaaagct 120  
attgcagacg gtcgtaatgc agataatttg attgcagggc tgagacaagt tgtaaatata 180  
tatggggatc cattgcatag gtttagctgca tatatggtag aaggctctgt agcaagggtg 240  
catttctcag gaggacatat ttacaaaacc ctaaaatgca aggagcctac cagttccgaa 300  
ctcctttctt acatgcatat tctatatgaa gtttgtccct 340

<210> 1867  
<211> 398  
<212> DNA  
<213> Pinus radiata

<400> 1867  
cttttcaaga agtggaaaag ggtgcaaagt ggaacccttt ccagaagctg gcggccgcag 60  
ttcttgatgc ggcgaggagc accctgggtc gtccgcttga gaagcaacgc ccgttgccca 120  
acacatccga cccaacgggt caactgtgcg gcaacttcgc gccggtgccg gaaacgcna 180  
tnaagcatga cctggaggtc gagggccggg taccggagtg cttagatgga gtttacgtcc 240  
gcaatggcgc naatccccgg ttcaaacccc gcggcgggcca ccatttattt nacggcgatg 300  
gaatgataca tgccgtgacg ctgagacacg ggaaggctag ttacagttgc cggttcacgg 360  
agaccgaaa gctcgttagc gaggagcggg cggggcgg 398

<210> 1868  
<211> 200  
<212> DNA  
<213> Pinus radiata

<400> 1868  
aattgcaa atcttgacagtt caatcggtaa atcaatgaaa agcatctcag atttatcacc 60

catgtgctaa	ttctatgagt	ggtttttgtt	tggtgtagga	gcgcactgca	ttctacttcg	120
gaaaaaata	tggtatgcaga	gcacttttct	gtagggtttct	ttaggtggga	taagagacca	180
gcaccagttg	tagcggcagc					200

<210> 1869  
 <211> 286  
 <212> DNA  
 <213> Pinus radiata

<400> 1869						
ggatagtgc	gagcggctga	acgtggagaa	gcacttcttc	gcagagaaaa	taatggggat	60
tgtagctttt	gagggagccg	aaagaaaaat	cagactggaa	ggaagagatc	agtggcgtat	120
tgtgatggaa	tcagcgggat	tcaaatttac	caatttaagt	cattatgcaa	ggagccaagc	180
tcgaattctt	ctctataatt	attgtgaagc	gtattctcta	gatgaatcgt	cggggtttct	240
ctctttggca	tggcaaaatc	ggcccctcct	caccgtcttc	agcctg		286

<210> 1870  
 <211> 301  
 <212> DNA  
 <213> Pinus radiata

<400> 1870						
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agtcgcgata	ttcacacaag	gccgccatta	tcatctatct	ttcaagaagc	agtagaccaa	120
acaagcaaaa	gcggaaaaac	tatgggaaag	aagaagaggn	aggcccccaa	ggtctggtgt	180
tattactgtg	agcgcgagtt	cgntgatgaa	aagatattgg	ttcagcaccn	gaaggccaaa	240
catttcaagt	gccatgtctg	ccacaagaag	ttgtctaccc	gctggaggca	tggccatcca	300
t						301

<210> 1871  
 <211> 301  
 <212> DNA  
 <213> Pinus radiata

<400> 1871						
ggctgcacca	ctgtagtaga	aacttttagcc	aagtggcagg	agctgaacag	ccaggtggaa	60
agctcaaaaag	atggcgcgaa	aagactcagg	aaagcccctg	ccaaagggtc	aaagaaaggt	120
tgcataaaag	gaaaggggtg	tcctgataat	ggacgttgca	actatagagg	agtcaggcag	180
agaacgtggg	gaaaatgggt	tgcggaaatc	agagaaccga	atcgtggaag	tcgactgtgg	240
ttgggtacgt	tctcttcagc	ggaggaggca	gcacgtgctt	atgatcaggc	tgcgagggtt	300
a						301

<210> 1872  
 <211> 447  
 <212> DNA  
 <213> Pinus radiata

<400> 1872						
aagaaacctta	cttgggggcaa	gagctcagcc	catgaaactt	tctgctaaaa	atgattcaaa	60
actgggtatt	gcaaggcctg	ccaagctcta	cagaggagtg	agacagaggc	actgggggaa	120
atgggtagca	gagatcagat	tacctaggaa	tagaaccagg	ctctggcttg	gaacttttga	180
cacagcagaa	gaagcagcgt	ttgcatatga	cacagcagcc	taccaactac	gtggtgagta	240
cgcaaggctt	aattttccgg	acttgaggta	tcttttgctc	tcaaattcgg	ataacggtag	300
ccataatgtt	ctttcgccac	cgggtaatgc	gttatctgtg	ctgaaatctt	ctgttgatgc	360
aaagctccag	gcaatttgcc	agcgtttatc	ccaggaaaat	tcttcagaaa	atcgtctgat	420
ggcacacagt	gccacaatg	aagctct				447

**RECEIVED**

gaagatggca	gcaaggggta	caaggcgcga	aatccccatc	ccaaaaaggg	cgtcgccctcg	60
tggtggtgg	acatggtgga	gaaactggtg	gttgaaactt	ctgcgttgta	tagttcgaag	120
aagcctctgc	attttctttt	ggggaacttc	gctccagtct	cggaaactgc	ccccaaatcg	180
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cccaatccga	aattcgacc	ggtagctggc	tatcactggg	ttgatggaga	tggaatgatc	300
catggtctca	g					311

<400> 1874								
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accagtctct	ttctttttta	actcaggagt	taaatcgcaa	tacaaaactc	ctgtgctgga			120
ctctattgta	tcatagtatt	cagcaagaga	ggccatgggg	cggggaaaga	tcgagctgaa			180
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taaaaaggca	caggagcttt	ccgtcttatg	cgatgcagag	gtcggcgctc	tcattttctc			300
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ctatcgattt	attgaaaaaa	atg						383

<400> 1875						
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tccgatgccg	atccccgcga	tggttgggat	cctaccacac	tgcalaacag	gcagctcgtg	120
cctatgatgc	tgccctcttc	tgccacagag	gtccgtcgtc	tttccctcaac	ttccctgaat	180
ctccaccctgc	tcagttttctc	ccatatcccc	tcgcgcctct	tcatgatatt	catct	235

<400> 1876							
gattgtatga	gatatcagaa	aataaaaactg	attttaattc	tgcaggcatc	tcagaaaaaac		60
aaaactggct	ttacttctac	aggcatctca	gaaaataaaaa	ctggttttac	ttctgcacag		120
atgtcagaat	aacaaaactc	gttttacttt	tgcagacatc	tcagacaata	aaactggttg		180
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aagggtttac	aagcttgaat	tcaaacttta	taatcgggcg	ctggtttata	gtccaaccgga		300
aaatgctgag	tctcatcacac	gctgcgcgc	gagctcgtcg	ccagttataa	aggtaccatg		360
gaagccgtaq	qqcacccqqq	aqqqcaqttt	qacggaggcc	acgacgtcga	gcgccg		416



<400> 1877  
gcacaatgtt gaaggggtggg atagaggggtc tnatgttgat cacaaagagt ttctcagagg 60  
gattggaggg tggagaatga gtatgccaaa gctctgtgat gtttgtcagg tatcaagctc 120  
tgtaatatat tgcagagctc atactgcaca gctttgtcta gtctgtgatg ctaaaattca 180  
tggtggtagc aaggcttcgt tgtgtcatga aagagtttgg gtttgtgaag natgtgagca 240  
ggccccagct gtggttacat gcaaggcaga tgcagcagct ttatgtgtag cctgtgatac 300  
tgatattcat tctgccaatc 320

<210> 1878  
<211> 456  
<212> DNA  
<213> Pinus radiata

<400> 1878  
ctttggattt catggggtc tttcactgac tccgccgtga aatatcacta atttcgcttc 60  
agagtttctg caatatgtgc aaatatggag aattttcccg agcaggaacc tgataatgcc 120  
attgctctac cacacgaaga tcgcggttcc cgccaattta agggaatccg actgcgaaaa 180  
tggtggagct gggcatctga aatccggata ccgagatcca gaaagaagat atggcttggc 240  
tcatacacta ccccgagca ggctgcccgc gcttacgacg ccgcagtgtg ttgtctgaga 300  
gggcgcaatg ccgaattcaa cttttctgtc cctgacattc cgactccgtc cccctttcc 360  
cgtgagcaaa ttcagcatgc cgccgccgaa tatgcgttga gccaggcccc ttcgagtttg 420  
gcctctttca taggttcccc ctccgagtcg tcttcg 456

<210> 1879  
<211> 491  
<212> DNA  
<213> Pinus radiata

<400> 1879  
ccggagtgt tagatggagt ttacgtccgc aatggcgaga atccccggtt caaaccgccg 60  
ggcgccacc atttatttga cggcgatgga atgatacatg ccgtgacgct gagacacggg 120  
aaggctagt acagttgccg gttcacggag accgaaaggc tcgttagcga ggagcgggcg 180  
ggcgagctg tttaccgaa gcccatcggg caactccacg gccacggcgg gctggtgcgc 240  
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gtggctaata ccgggctggc cttctttaac ggccgtctgc tcgctatgtc cgaagacgat 360  
ctcccgatg ccgtcagggg gacgggtgac ggcgatctgg tgacgacggg caggttcgat 420  
ttcgacgggc agcttcacgg gtcgtcatcg gtcaccgcgc accccagcat tgaccccgac 480  
acgggcgagc t 491

<210> 1880  
<211> 310  
<212> DNA  
<213> Pinus radiata

<400> 1880  
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gctggcgcaa cccttagaca atttgcagaa ttagaatcaa tggagcttca gaagacttca 120  
ccttaccac atcttcgcca ttatcgggtc accttgcccc cttcacctcc tcccttcccc 180  
ccacctccac cacctctcc tccattgtct ctcacccctt ctcctagtta tggatctgca 240  
acttttccct ccagcatccc agtcaatcga agcatctaca gatgtccgta tcagcaatgc 300  
tcaccatcat 310

<210> 1881  
<211> 251  
<212> DNA  
<213> Pinus radiata

<400> 1881  
ctggntcctc cgatctcgct ccctgtaaca cgccccggtc agaaatggtg aaggaggagg 60  
attgtaaggt gcccgaagag gccggaatcg tgaaggaatt tcaagcctgg actatgcca 120  
agccctgcaa cgtgtgcagg atcgcgagcg ctctcgctcta ttgcagggcc gacgctgctt 180  
atctctgctc cggctgcgac gtcaaagttc acggcgccaa caagctggcg tcgcgccacg 240  
agagggtgtg g 251

<210> 1882  
<211> 351  
<212> DNA  
<213> Pinus radiata

<400> 1882  
cacgagggcc agagctgtgg ctgttcccag aagaggatat catcagctgt ccagtttgtc 60  
ctaagagact acagaagaag aatatagaag atgggtagat ccccttgccc cccaaaagaa 120  
gcgcttaacc gtggggcctg gacaggcatg gaggatacga ttctcaccga gtacattcga 180  
gttcattggca gtgggtggctg gaaagctatc tccaaaagag caggtgagtg tcaataaaaa 240  
tttaatatgca attcttttta ttagcagaag gaagtagcaa tctcccaggt tatatataac 300  
aattcatcag tcatatatac cagaaattta tagtcgagtc taagaggggag a 351

<210> 1883  
<211> 450  
<212> DNA  
<213> Pinus radiata

<400> 1883  
tcccttatca cagaatagaa actgatggct agtcagatcc cagaatgaac cctctaaatt 60  
aatgtagcc cgcctagaac attagaagaa gcaaaagcaa acattcatga tcaataaatg 120  
tagattaaaa ccaccggcat tgatgtgtag tagaagttga atatggtcag gcatacttgt 180  
tctgtttgct gtggctgggt tcaagttcgt agagctttcc tcggccagaa aaaacgatga 240  
gcgccacctc tgcategcac agcactgaaa gctcgaaggc tttcttcac agaccgcctc 300  
ggcgcttcca gaaggtcacc tgcctgcgca cgctattctc gatcttcttg gtttctattt 360  
taccgcgccc cattttcagc aaaatcccaa aatctgagta tgggcaggcg ttgaacttaa 420  
atttgcctca tgaacagaat taccgagctt 450

<210> 1884  
<211> 386  
<212> DNA  
<213> Pinus radiata

<400> 1884  
aatgatcag aggcggttct ccagttattc acaacaaaga aaagggtccc cgcttcgggc 60  
ttctgcccga atatgcttct gacgagagt agctgaaatg gatcgaggtc ccgattgtct 120  
tctgctttca tctctggaac gcctgggaag aaggagaaga cgaggttgct gtcacggct 180  
cctgtatgac cccgccggac gccattttca acgaatctga cagcgcgctg cggagtgttc 240  
tgtcggaat tcggctcaat ctcaaaaccg gcttgctcac cagacgcgag atcacgccga 300  
tgaatctcga gactacttct agagcggccg cgggcccac gattttccac ccgggtgggg 360  
taccaggtaa gtgtacccaa ttcgcc 386

<210> 1885  
<211> 190  
<212> DNA  
<213> Pinus radiata

<400> 1885  
aatgatcag aggcggttct ccagttattc acaacaaaga aaagggtccc cgcttcgggc 60  
ttctgcccga atatgcttct gacgagagt agctgaaatg gatcgaggtc ccgattgtct 120

tctgctttca tctctggaac gcctgggaag aaggagaaga cgaggttgct gtcacgagct	180
cctgtatgac	190

<210> 1886  
 <211> 412  
 <212> DNA  
 <213> Pinus radiata

<400> 1886	
ggtcccagcc gccttcnngg gcggttcgtgc cgcaagatat gcttctgacg agagtgcgct	60
gaaatggntc gaggtcccgg attgcntctg cnttcatctc tggaacgcct gggaagaagg	120
agaagacgag gttgtcgtca tcggctcctg tatgaccccg ccggacgcca ttttcaacga	180
atctgacagc gcgctgcgga gtgttctgtc ggaaattcgg ctcaatctca aaaccggctt	240
gtccaccaga cgcgagatca cgccgatgaa tctcgagagt acttctagag cggccgcggg	300
cccacgatt ttccaccgg gtgggggtacc aggtaagtgt acccaattcg ccctatacgt	360
gagtcgtatt acaattcacc tggccgtcgt tttaacaaccg ncntgactgg ga	412

<210> 1887  
 <211> 329  
 <212> DNA  
 <213> Pinus radiata

<400> 1887	
atcagaaggc ggttctccag ttattcacaa caaagaaaag gtcccgcgct tcgggcttct	60
gccccaaatat gcttctgacg agagtgcgct gaaatggatc gaggtcccgg attgcttctg	120
ctttcatctc tggaacgcct gggaagaagg agaagacgag gttgtcgtca tcggctcctg	180
tatgaccccg ccggacgcca ttttcaacga atctgacagc gcgctgcgga gtgttctgtc	240
ggaaattcgg ctcaatctca aaaccggctt gtccaccaga cgcgagatca cgccgatgaa	300
tctcgagagt acttctagaa gcggccggc	329

<210> 1888  
 <211> 101  
 <212> DNA  
 <213> Pinus radiata

<400> 1888	
aaatgatcag aggcgggttct ccagttattc acaacaaaga aaaggtcccg cgcttcgggc	60
ttctgcccac atatgcttct gacgagagtg agctgaaatg g	101

<210> 1889  
 <211> 326  
 <212> DNA  
 <213> Pinus radiata

<400> 1889	
atgatcagag gcggttctcc agttattcac aacaaagaaa aggtcccgcg ctccgggctt	60
ctgcccacaa atgcttctna cgagagtgcg ctgaaatgga tcgaggtccc ggattgcttc	120
tgctttcatc tctggaacgc ctgggaagaa ggagaagacg aggttgcgt catcggtcc	180
tgtatgacct cgtggacgc cattttcaac gaatctgaca gcgcgtgcg gagtgttctg	240
tcggaaattc ggctcaatct caaaaccggc ttgtccacca gacgcgagat cagccgatg	300
aatctcgaga gtacttctag agcgg	326

<210> 1890  
 <211> 246  
 <212> DNA  
 <213> Pinus radiata

U96404.1.03400

<400> 1890  
agctgaaatg gatcgacgtc ccggattgct tctgctttca tctctggaac gcctgggaag 60  
aaggagaaga cgagggttgc gtcacatggct cctgtatgac cccgccggac gccattttca 120  
acgaatctga cagcgcgctg cggagtgttc tgtcggaaat tcggctcaat ctcaaaaccg 180  
gcttgtccac cagacgcgag atcacgccga tgaatctcga gagtacttct agagcggccg 240  
cggggc 246

<210> 1891  
<211> 238  
<212> DNA  
<213> Pinus radiata

<400> 1891  
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ttctgcccac atatgcttct gacgagagtg agctgaaatg gatcgaggtc ccggattgct 120  
tctgctttca tctctggaac gcctgggaag aaggagaaga cgagggttgc gtcacatggct 180  
cctgtatgac cccgccggac gccattttca acgaatctga cagcgcgctg cggagtgt 238

<210> 1892  
<211> 349  
<212> DNA  
<213> Pinus radiata

<400> 1892  
tgtaccggaa aattccaaac aaataatcaa ccatggactc atattgccgg agatgggctc 60  
agtggacagc gggcgcgaaag gcacgagagc aattttgtcc gatgattgtg tgaaattcga 120  
atgccgatat tgtttagagg ttttcccgac gtctcaggct ctccggcgcc accagaacgc 180  
ccataaacga gaacggcgcc gggcaatgac gaggtttcag agatcgccct ctgacagttc 240  
aaactattca ggaaaacaga atagtattga tctgttttagc cgtgagagag ttccccgggc 300  
ttctctcctt tcaccacacg gtacgaggga tcatgttgtt tgcagtgc 349

<210> 1893  
<211> 417  
<212> DNA  
<213> Pinus radiata

<400> 1893  
gaagaagaag aagaagaaag ccccggtggtt tcagggcgaa tgagccgtag cgctcagaa 60  
tgggccttcc agaagtttct cagttttgat ggttccaaga ttccgtcaga agatggagaa 120  
ggcgaacaga agcctctcgg tgttaaagat cctctgcttc acggtcatat ggacaacgctc 180  
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cctcgagatt acgaggcctt cctcaagcgg aggettaacc ttgcctgcgc ggcagtcgcc 300  
ttcactcggg ttacaggaat tagctctcca ggccctggtc cctcaacagt ggatgcaaac 360  
caatctcaga acacttttagg atcagaaaga gtgcacgtt ggtatcccaa tcttccg 417

<210> 1894  
<211> 456  
<212> DNA  
<213> Pinus radiata

<400> 1894  
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ctacagaggc gtcacaaggc atagatggac aggacgatat gaagctcatc tttgggacaa 180  
aagtacttgg aaccagaacc aaaataaaaa gggcaagcaa gtgtacctag gtgcctatga 240  
tgaggaggag gctgcagcca gagcttatga ccttgccgct ctgaaatatt ggggtcctgg 300  
aactctcatt aattttcctg ttagtgacta tgctagagat attgaagaga tgcagagcat 360

ttcaagggaa gatttcctgg cttctctcag acggaaaagt agtggggtttt caaggggaat	420
gtcaaaatac cgtggactgc caagcaatca caaact	456

<210> 1895  
 <211> 456  
 <212> DNA  
 <213> Eucalyptus grandis

<400> 1895						
ggaaggcaat gagagtgate tcctcaaggg aatgaagaag gcaaggcgtg agagaggatc	60					
aacagcaaag gaacggatta gtaaaatgcc tccctgtgct gctggaaaac ggagttctat	120					
ctacagaggc gtcacaaggc atagatggac aggacgatat gaagctcatc tttgggacaa	180					
aagtacttgg aaccagaacc aaaataaaaa gggcaagcaa gtgtacctag gtgcctatga	240					
tgaggaggag gctgcagcca gagcttatga ccttgccgct ctgaaatatt ggggtcctgg	300					
aactctcatt aattttcctg ttagtgacta tgctagagat attgaagaga tgcagagcat	360					
ttcaagggaa gatttcctgg cttctctcag acggaaaagt agtggggtttt caaggggaat	420					
gtcaaaatac cgtggactgc caagcaatca caaact	456					

<210> 1896  
 <211> 388  
 <212> DNA  
 <213> Eucalyptus grandis

<400> 1896						
gtaaatcaat acctggctag catcctaatt tagcattcaa tgttggcagt attagatcca	60					
accagcagca gcttcagcaa cagcatgate tgccctctct ccccaagcca gcaacaatgc	120					
cttttgctc ttcagtaagt atagcaaata attcccagat gcctgggtta gggtaagag	180					
gggtaatcag gatgacagat gcatccatca aaagtctcct agctcaagggt ggtgggctgc	240					
agactggagt tggcatgact gggtttagaca ctaggggagt tgctcttcag acagtatctc	300					
ctgctaacca tatatctccg gatgtaatct ctagggaacac gatggattcg tcttcactct	360					
caccagttcc ttatccgttt ggccgggg	388					

<210> 1897  
 <211> 202  
 <212> DNA  
 <213> Eucalyptus grandis

<400> 1897						
atgcgaaaca tgctcaaaca cccccaacat catgggaagg tggaagtggg gctgattcgg	60					
aggttaacat gttgaaggat tacgcttcag aggactggat tacagggtgtt gaccgcttcc	120					
ggttgagctt gggtgaattt cttgataagt tgaataagta tgcggagtc tctgttcata	180					
tgtacgtgtc ccttgaaaag gc	202					

<210> 1898  
 <211> 289  
 <212> DNA  
 <213> Eucalyptus grandis

<400> 1898						
gttgaatggg gattcaaaca atggcttcac aaggcggcgg cggcagcagc ggtaatgcc	60					
gaggtggcgg tggcaataat ggaaaatcca ctgaagttca gccattgact cggcagaatt	120					
caatatacag tctcactctt gatgaggttc aaaaccagtt aggtgattta gggaagccat	180					
tgagcagcat gaacctggac gagcttttga agaattgtctg gacagctgag gccggtcagt	240					
caatgtttat ggatgttgag ggcacggctg tggctaataa aaatgctct	289					

<210> 1899  
 <211> 477

<212> DNA

<213> Eucalyptus grandis

<400> 1899

cttgaaatcg	ggcgtgcccc	gctcgatcgc	agcttcaagc	agctcaaaaa	gactgtatat	60
cactcgacga	gtgtgctgag	cacattgagc	tcgagctggg	catcaaagcc	gccattggca	120
gtgaagtacc	agctcaaccc	cggctcactc	actgaatcag	atgattcaaa	gagcctctgc	180
tccactctgg	acaagctctt	ggcttgggag	aagaagctct	atgaggaagt	gaaggctaga	240
gaagggtgaga	agatagagca	tgaaaagaag	ttgtcagtac	ttcagagcca	ggaaggcaag	300
ggagaagatg	aaaccaaggt	agacaagacc	aaggcctcat	taaataagtt	gcaagcacta	360
atagctgtta	cgtcggaggc	tgtctctaca	acttcaaagt	caattatttg	cctcagagac	420
agtagacttg	tcccgcagct	tgttgaaactc	tgccatgggt	tcattgtacat	gtggagg	477

<210> 1900

<211> 1243

<212> DNA

<213> Eucalyptus grandis

<400> 1900

ccccctctt	cctcagtcag	ccagtctctc	tctctctctc	tctcacatct	ctagtttcag	60
ccttttttct	ccatttggcc	aagcagcgcc	cgccgcgcga	cccgaaggct	tccggatctg	120
gtgctcggtg	ctattccgct	cgtcgatagg	aggctaggct	acgctgaaag	aagttgatga	180
gcgcaatttc	actgatggag	tggaaatgca	aacctcctct	gcagtgggaa	tggaagaatc	240
ttatgatgtt	cggttcaaaa	gcgactgaaa	cctctaagcc	gctgcgagcg	actgattggg	300
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gcagcagcag	ttgtaccagc	attgatccgg	gttacacttc	tgtgtccaag	agctcgaaat	420
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ccccgccaga	tgtgacccag	ttgaatccgg	ctagactgtc	tgactgtttt	tatgggtggga	1020
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gttttaaatg	ggcagataca	caggacacta	agctcataga	gaaagggtccg	aagcttccaa	1140
taggcggagg	tgttggtgag	tgtatcacta	tccaagcaa	tgggataccg	gacaccctca	1200
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<210> 1901

<211> 366

<212> DNA

<213> Eucalyptus grandis

<400> 1901

aaaaagtata	tatacctcgg	cctattttgat	agtgaagtag	aggcagcaag	ggcgtatgac	60
aaggcagcta	tcaaatgtaa	tggaaagagag	gctgtgacca	actttgaacc	tagtacgtac	120
gatggagaga	tgattgcaaa	agccagcaat	gaaaatagca	tctatgggtga	ccatgggtctt	180
gatctcaatc	tcgggatatc	agcttcttcc	aggggaatgg	tggaaacctt	agagccctcg	240
gacgacatgc	gtcagggaag	tagtttaagg	gtaggaaact	ctgctgcata	ctgggggtgat	300
ccatctgttg	aaggttttatc	gatgacatct	ggacaacctc	tccttgacgg	gtgttttatcc	360
taccgt						366

<210> 1902

<211> 466

<212> DNA  
<213> Pinus radiata

<400> 1902

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gctcatgcgg	ctgcgagagc	ttacgacagg	gcagctatca	agtttcgagg	agttgaagct	120
gatataaatt	ttactctcac	cgactatcaa	gaagatttag	accagacgag	caagctctct	180
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aagtatagag	gcgttacccct	gcacaagtgt	gggcgatggg	aagccagaat	gggtcaattc	300
ctaggaaaaa	agtatatata	tttgggatta	tttgacagtg	aagaggaggc	tgcaagggca	360
tatgataagg	ctgctatcag	gtgcaatgga	aaggaggcag	taacgaactt	tgatcctagc	420
ttatatgaaa	aagaaattct	tgaagaaaga	agagagagtc	agactt		466

<210> 1903  
<211> 240  
<212> DNA  
<213> Pinus radiata

<400> 1903

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gaaaagaata	cgttccaagg	attcaggaga	agatggtgaa	gatagacaga	gagaacatcc	120
tttcattgtt	actgagcccg	gtgaacttgc	aagagggaaa	aagaatgggt	tagactatct	180
ctttgatctt	tatgaacagt	gcgggaaatt	tctgctggat	gtgcaacata	ttgcgaagga	240

<210> 1904  
<211> 495  
<212> DNA  
<213> Pinus radiata

<400> 1904

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attgccaggg	cgagggttgt	aaggcaaaact	tgagcagtgc	caaacactac	catcgccggc	120
ataagggttg	tgaattgcac	tcgaaggctt	ctactgttat	tgtgggtggg	ttcattcagc	180
ggttctgcca	acaatgtagc	agatttcatc	caagatctga	attcgacgag	ggaaaacgaa	240
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aaggatcatc	aggtcacatt	acaacggctg	ttcagaatac	accgaacatt	agcagaagca	420
ctagtagtac	tagtccgtcc	ttgattacat	cagtaccgat	gatgatgttc	ccaataaact	480
ataaaggaca	tagtc					495

<210> 1905  
<211> 377  
<212> DNA  
<213> Eucalyptus grandis

<400> 1905

taacactaca	ttcatcacc	caaacagcaa	acggatcatc	tcgcacaatc	catcaagtgt	60
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tatagcggga	gattgcaact	tgaaagacag	attacatata	caaagtggaa	tcacatatag	180
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ccccagcaa	tctgaaagca	acaaaaaga	agccaccgat	gatgctcatg	gcaccaacgt	300
ccaaggaaca	tttcttaaaa	aggatgatcc	aaaagttact	gctctgattc	aacaagccga	360
gctgctcagt	tcctttg					377

<210> 1906  
<211> 377  
<212> DNA

<213> Eucalyptus grandis

<400> 1906

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cataacatgc	aaaactcaat	acatgattct	cagaaaagac	catcatcttt	aattcagtca	120
aacgaggctg	tttttacgca	aacttcgggc	ataagctgtg	ccttgcaatc	gtttgttaaa	180
cctccaaatg	ctaagggtcac	ggtcacattc	ctctctgac	tttgagcagc	tcatggcacc	240
aacgtccaag	gaacatttct	taaaaaggat	gatccaaaag	ttactgctct	gattcaacaa	300
gccgagctgc	tcagttccct	tgcggtgaaa	gtcaatgcag	ataacatgga	ccagagtctt	360
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<210> 1907

<211> 1668

<212> DNA

<213> Pinus radiata

<400> 1907

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cggcgccgtg	aaagtggcga	ttccggccgt	gtcgggggat	tcggggacga	ttgggttaaa	180
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gcggtgtcag	gtggagggat	gagagatgga	actcaccgcc	gcaaaggact	accaccgccg	360
ccacaaggtc	tgcgagctcc	actccaagtt	tccaaggtc	atcgtcaacg	ggatcgagca	420
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gagctgtcgg	aggcgtctag	ctggccacaa	ccagcggcgt	aggaaacccc	aacttaattc	540
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aaagattgct	tttcttttta	cagggttcta	agactgtacc	tgggtggagct	attaatcaaa	840
gcactcatca	gtacaggcaa	agctccaggg	atcatgtggg	ccaatccttg	accttgctcat	900
cctgctcggg	agaaaatcta	acaggtttta	atgttatatc	tgccccacat	ggtttatcag	960
gagctctcga	ctctggctgt	gcgcactagc	ttctgtcaat	tcaatccggg	ggcccaaggt	1020
cctcaggatc	agcttcattt	gatatgacca	cgcggtcagg	tctcacaatg	gatcaactta	1080
tactagagga	tcaacctctt	atggctcaag	caccattgat	gcaaggagta	caacacaact	1140
ttgggtcattt	tgcaagaagc	aagttactaa	caatgtatcc	ccagtcctct	actaatcttg	1200
caacaggtgg	gttccctgca	gctactgtga	attctatgga	taagcagcac	caaggctcatc	1260
cactcgtttc	cgatgcaggc	caaattggtta	actttggagg	aaatatattt	ggcttgctgc	1320
aggggagcag	tttcagaggc	tctcaagctg	caagttcaca	agatatattt	ggcaccatag	1380
atctgatgtg	cacgtcctcg	gaaacacaaa	ctaattgattc	tcatgatcaa	cttggcatgg	1440
tgcaccaggg	aagtaaacag	tttactgact	tgcagttggt	gaggtctttt	gaatcatcta	1500
tttatgacac	tcatcaactg	ctgtagctct	aatctggttg	ttcttcgggc	atgttttctt	1560
tgccttcaga	cttgaagata	actgttaaaa	cttcattatg	acaattatct	gtacctctta	1620
aatgcagaca	attgctttca	attacccttg	cttattttcaa	aaaaaaaa		1668

<210> 1908

<211> 821

<212> DNA

<213> Eucalyptus grandis

<400> 1908

ctctctctct	ctctctctct	ctctttcttt	ctttctttct	ctctctagca	gaggcacaga	60
ggcgcgagca	gggactgat	gatgacgact	ggggtagctc	caatgaatgg	gctctagaga	120
acctcgctca	tggacgtggg	ttcggtctcg	tggacgacgg	agtcggggc	ctcttctcct	180
ccccctctcg	agtcctcaa	cggcctcaag	ttcggtcaga	aaatctactt	ccagaataat	240
aacagtagta	ataatgccgc	cgcacccaag	aacggctccg	gctccggctc	cggtcctctc	300



tccgccgccc	cgcccgccgc	cggggtcgggc	acgcccccca	agaaggtgag	ggcctccgcc	360
ggcgggggcg	gctgcggggc	gatccagggc	gggcagcccc	cgaggtgcca	ggtggaaggc	420
tgccgggtgg	atctgagcga	tgccaaggct	tactattcca	ggcacaaggc	gtgcggcatg	480
cactccaagt	ccgccaccgt	catcgtcgcc	ggcatcgagc	agaggttctg	ccagcagtcg	540
agcagattcc	atcagcttac	tgaatttgac	caagggaaac	gaagctgtcg	tagacgtttg	600
gctggtcaca	atgagcgccg	gaggaagccc	ccacctgggt	cgctactatc	ctctcgctat	660
gggcgactgc	aatcctctat	atttgagaac	accaccagag	tgggtagttt	tctgatggat	720
ttcacagcat	acccgaagca	tgcatgggtc	gcgccacgtt	tttctgagcg	cacgacacct	780
ggagatctag	tccccggacc	aggaaaggct	tatcctcatc	c		821

<210> 1909  
 <211> 105  
 <212> DNA  
 <213> Eucalyptus grandis

<400> 1909						
gggaagagga	gcgtagagtg	ggattcgaac	gattggaagt	gggacgggtga	tctgttcgctc	60
gctaggccgc	tgaaccgggt	cccgtccgat	ttccccggcc	ggcag		105

<210> 1910  
 <211> 338  
 <212> DNA  
 <213> Pinus radiata

<400> 1910						
cagaagagac	ctgccatgga	aacacatttt	gcaggacaga	aatttcatca	ttcacaggct	60
cacagatacc	ccagtgccag	tcggagggtt	gtaaagcaaa	cttgagcagt	gccaaacact	120
accatcgccg	acataaagtt	tgccaattcc	actctaaggc	tcctacggtc	gttggtggcg	180
gtcagattca	gcggttttgc	caacagtgtg	gtagattttc	tcagacatct	gaatttgacg	240
gaggaaagcg	gagctgcaga	aagcgccctg	ctgaccacaa	cagacgccgg	cggaaaccta	300
aaccgagtca	atgtactaca	tcccaatgtc	aggcaggg			338

<210> 1911  
 <211> 465  
 <212> DNA  
 <213> Pinus radiata

<400> 1911						
tcgacatggt	cctttgcatt	ttcttgaaga	agctgtgatt	gttcgaccga	cacgttactc	60
attcacattg	cctctccatc	tccttcaatc	aggattccag	aattgcccgt	cgaaatggat	120
gaagtccaag	tcaaggctga	cattcagagc	acaaatgtca	gtgccgacga	gccaggcct	180
gcgaagcgcc	agggtttcga	gctcgccaag	agccctgaaa	acgtggcttc	gaaatccact	240
gcgctctcct	ctccgaaaaa	acccaaagct	gcttcttctc	cttcttcttc	gtcgccgaga	300
gcgcagcctc	ccgcttgcca	ggtggagaaa	tgcgcgccgg	atcttgctga	tgccaaagag	360
tactatagga	ggcacagggt	ttgcgagcaa	cattcaaagg	ctcgaattgt	gctcgttctt	420
ggcctccagc	aacgcttctg	ccagcaatgt	agcagattcc	atgtg		465

<210> 1912  
 <211> 509  
 <212> DNA  
 <213> Pinus radiata

<400> 1912						
ctccttacaa	aagtagctcc	cctcttgact	ccaggcggtc	ttcccagtc	ataacgatac	60
ggattacacc	cacgcacccc	atgtcttcca	cctcatcgta	ttcttctccc	ttccctgaca	120
caccatcaca	gtctgccgct	gtgcgcccga	catctaccgc	agacgattct	tcggtcatgg	180
aacctccacg	taagcgagcc	agggtgtgac	ttaacgctga	acagcgaaga	gaggccaggg	240

cccaccgtaa tcgaattgcc gctcaaaaact ctgcgataa acgcaaggcg caattcactt 300  
 acatggagca gcgcgtggca caactggagg aagagaacca acgactacga gcaggcatgg 360  
 gcctctctca attcacgcca gccgacaacg acaagttcgt cagcctcgag agagaatcag 420  
 tacaggcccg cgagaacaga gagctcaagg agaggatcaa gagtctagag agcgggtggt 480  
 cggccgtcat caaagcgttg caggcctca 509

<210> 1913  
 <211> 151  
 <212> PRT  
 <213> Pinus radiata

<400> 1913  
 Glu Gly Asn Glu Ser Asp Leu Leu Lys Gly Met Lys Lys Ala Arg Arg  
 1 5 10 15  
 Glu Arg Gly Ser Thr Ala Lys Glu Arg Ile Ser Lys Met Pro Pro Cys  
 20 25 30  
 Ala Ala Gly Lys Arg Ser Ser Ile Tyr Arg Gly Val Thr Arg His Arg  
 35 40 45  
 Trp Thr Gly Arg Tyr Glu Ala His Leu Trp Asp Lys Ser Thr Trp Asn  
 50 55 60  
 Gln Asn Gln Asn Lys Lys Gly Lys Gln Val Tyr Leu Gly Ala Tyr Asp  
 65 70 75 80  
 Glu Glu Glu Ala Ala Ala Arg Ala Tyr Asp Leu Ala Ala Leu Lys Tyr  
 85 90 95  
 Trp Gly Pro Gly Thr Leu Ile Asn Phe Pro Val Ser Asp Tyr Ala Arg  
 100 105 110  
 Asp Ile Glu Glu Met Gln Ser Ile Ser Arg Glu Asp Phe Leu Ala Ser  
 115 120 125  
 Leu Arg Arg Lys Ser Ser Gly Phe Ser Arg Gly Met Ser Lys Tyr Arg  
 130 135 140  
 Gly Leu Pro Ser Asn His Lys  
 145 150

<210> 1914  
 <211> 128  
 <212> PRT  
 <213> Eucalyptus grandis

<400> 1914  
 Lys Ser Ile Pro Gly Gln His Pro Asn Leu Ala Phe Asn Val Gly Ser  
 1 5 10 15  
 Ile Arg Ser Asn Gln Gln Gln Leu Gln Gln Gln His Asp Leu Pro Leu  
 20 25 30  
 Leu Pro Lys Pro Ala Thr Met Pro Phe Ala Ser Ser Val Ser Ile Ala  
 35 40 45  
 Asn Asn Ser Gln Met Pro Gly Leu Gly Ser Arg Gly Val Ile Arg Met  
 50 55 60  
 Thr Asp Ala Ser Ile Lys Ser Ser Leu Ala Gln Gly Gly Gly Leu Gln  
 65 70 75 80  
 Thr Gly Val Gly Met Thr Gly Leu Asp Thr Arg Gly Val Ala Leu Gln  
 85 90 95  
 Thr Val Ser Pro Ala Asn His Ile Ser Pro Asp Val Ile Ser Arg Asn  
 100 105 110  
 Thr Met Asp Ser Ser Ser Leu Ser Pro Val Pro Tyr Pro Phe Gly Arg  
 115 120 125

<210> 1915

<211> 66  
 <212> PRT  
 <213> Eucalyptus grandis

<400> 1915  
 Ala Lys His Ala Gln Thr Pro Pro Thr Ser Trp Glu Gly Gly Ser Gly  
 1 5 10 15  
 Ala Asp Ser Glu Val Asn Met Leu Lys Asp Tyr Ala Ser Glu Asp Trp  
 20 25 30  
 Ile Thr Gly Val Asp Arg Phe Arg Leu Ser Leu Val Glu Phe Leu Asp  
 35 40 45  
 Lys Leu Asn Lys Tyr Ala Glu Ser Ser Val His Met Tyr Val Ser Leu  
 50 55 60  
 Glu Lys  
 65

<210> 1916  
 <211> 89  
 <212> PRT  
 <213> Eucalyptus grandis

<400> 1916  
 Met Ala Ser Gln Gly Gly Gly Gly Ser Ser Gly Asn Ala Arg Gly Gly  
 1 5 10 15  
 Gly Gly Asn Asn Gly Lys Ser Thr Glu Val Gln Pro Leu Thr Arg Gln  
 20 25 30  
 Asn Ser Ile Tyr Ser Leu Thr Leu Asp Glu Val Gln Asn Gln Leu Gly  
 35 40 45  
 Asp Leu Gly Lys Pro Leu Ser Ser Met Asn Leu Asp Glu Leu Leu Lys  
 50 55 60  
 Asn Val Trp Thr Ala Glu Ala Gly Gln Ser Met Phe Met Asp Val Glu  
 65 70 75 80  
 Gly Thr Ala Val Ala Asn Gln Asn Ala  
 85

<210> 1917  
 <211> 159  
 <212> PRT  
 <213> Eucalyptus grandis

<400> 1917  
 Leu Glu Ile Gly Arg Ala Gln Leu Asp Arg Ser Phe Lys Gln Leu Lys  
 1 5 10 15  
 Lys Thr Val Tyr His Ser Thr Ser Val Leu Ser Thr Leu Ser Ser Ser  
 20 25 30  
 Trp Ser Ser Lys Pro Pro Leu Ala Val Lys Tyr Gln Leu Asn Pro Gly  
 35 40 45  
 Ser Leu Thr Glu Ser Asp Asp Ser Lys Ser Leu Cys Ser Thr Leu Asp  
 50 55 60  
 Lys Leu Leu Ala Trp Glu Lys Lys Leu Tyr Glu Glu Val Lys Ala Arg  
 65 70 75 80  
 Glu Gly Glu Lys Ile Glu His Glu Lys Lys Leu Ser Val Leu Gln Ser  
 85 90 95  
 Gln Glu Gly Lys Gly Glu Asp Glu Thr Lys Val Asp Lys Thr Lys Ala  
 100 105 110  
 Ser Leu Asn Lys Leu Gln Ala Leu Ile Ala Val Thr Ser Glu Ala Val  
 115 120 125

Ser	Thr	Thr	Ser	Asn	Ala	Ile	Ile	Gly	Leu	Arg	Asp	Ser	Arg	Leu	Val
	130					135					140				
Pro	Gln	Leu	Val	Glu	Leu	Cys	His	Gly	Phe	Met	Tyr	Met	Trp	Arg	
145					150					155					

<210> 1918

<211> 349

<212> PRT

<213> Eucalyptus grandis

<400> 1918

Met	Glu	Trp	Asn	Ala	Lys	Pro	Pro	Leu	Gln	Trp	Glu	Trp	Glu	Asn	Leu
1			5					10						15	
Met	Met	Phe	Gly	Ser	Lys	Ala	Thr	Glu	Thr	Ser	Lys	Pro	Leu	Arg	Ala
			20					25					30		
Thr	Asp	Trp	Gly	Ile	Glu	Ala	Glu	Leu	Ile	Asp	Pro	Gly	Ser	Leu	
			35				40					45			
Phe	Leu	Tyr	Glu	Asn	Gly	Gly	Gly	Ser	Ser	Ser	Cys	Thr	Ser	Ile	Asp
	50				55						60				
Pro	Gly	Tyr	Thr	Ser	Val	Ser	Lys	Ser	Ser	Lys	Ser	Ala	Ser	Val	Asn
65					70					75					80
Ser	Ser	Ser	Thr	Asp	Glu	Leu	Lys	Ile	Ser	Lys	Phe	Ser	Val	Glu	Ala
				85					90					95	
His	Glu	Gly	Phe	Ser	Leu	Gln	Ser	Ser	Lys	Lys	Glu	Leu	Ala	Val	Asn
			100					105						110	
Asp	Phe	Thr	Gly	Met	Ser	Pro	Ala	Leu	Glu	Pro	Ser	Val	Cys	Ser	Gly
			115				120					125			
Glu	Pro	Leu	Leu	Ser	Leu	Lys	Leu	Gly	Lys	Arg	Ile	Tyr	Phe	Glu	Asn
	130					135					140				
Thr	Ile	Asp	Lys	Asp	His	Val	Lys	Thr	Gln	Asp	Leu	Pro	Ser	Val	Met
145					150					155					160
Lys	Ser	Pro	Asp	Thr	Pro	Ala	Lys	Arg	Asn	Lys	Ser	Asn	Cys	Gln	Gly
				165					170					175	
Thr	Ser	Ala	Pro	Arg	Cys	Gln	Val	Glu	Gly	Cys	Asn	Leu	Asp	Leu	Ser
			180					185					190		
Ser	Ala	Lys	Asp	Tyr	His	Arg	Lys	His	Arg	Val	Cys	Glu	Ser	His	Ser
		195					200					205			
Lys	Cys	Pro	Lys	Val	Ile	Val	Ser	Gly	Ile	Glu	Arg	Arg	Phe	Cys	Gln
	210					215					220				
Gln	Cys	Ser	Arg	Phe	His	Gly	Leu	Ser	Glu	Phe	Asp	Glu	Lys	Lys	Arg
225					230					235					240
Ser	Cys	Arg	Lys	Arg	Leu	Ser	Asp	His	Asn	Ala	Arg	Arg	Arg	Lys	Pro
				245					250					255	
Pro	Pro	Asp	Val	Thr	Gln	Leu	Asn	Pro	Ala	Arg	Leu	Ser	Ala	Leu	Phe
			260					265					270		
Tyr	Gly	Gly	Met	Gln	Gln	Leu	Asn	Pro	Val	Leu	Ser	Arg	Ala	Pro	Ala
		275					280					285			
Ile	His	Thr	Arg	Ser	Thr	Ala	Ser	Phe	Lys	Trp	Ala	Asp	Thr	Gln	Asp
	290					295					300				
Thr	Lys	Leu	Ile	Glu	Lys	Gly	Pro	Lys	Leu	Pro	Ile	Gly	Gly	Gly	Val
305					310					315					320
Gly	Glu	Cys	Ile	Thr	Ile	Pro	Ser	Asn	Gly	Ile	Pro	Asp	Thr	Leu	Lys
				325					330					335	
Ser	Thr	Gly	Leu	Gly	Lys	Ser	Tyr	Asn	Glu	Leu	Leu	Ser			
			340						345						

<210> 1919

<211> 122  
 <212> PRT  
 <213> Eucalyptus grandis

<400> 1919  
 Lys Lys Tyr Ile Tyr Leu Gly Leu Phe Asp Ser Glu Val Glu Ala Ala  
 1 5 10 15  
 Arg Ala Tyr Asp Lys Ala Ala Ile Lys Cys Asn Gly Arg Glu Ala Val  
 20 25 30  
 Thr Asn Phe Glu Pro Ser Thr Tyr Asp Gly Glu Met Ile Ala Lys Ala  
 35 40 45  
 Ser Asn Glu Asn Ser Ile Tyr Gly Asp His Gly Leu Asp Leu Asn Leu  
 50 55 60  
 Gly Ile Ser Ala Ser Ser Arg Gly Met Val Glu Thr Leu Glu Pro Ser  
 65 70 75 80  
 Asp Asp Met Arg Gln Gly Ser Ser Leu Arg Val Gly Asn Ser Ala Ala  
 85 90 95  
 Ser Trp Gly Asp Pro Ser Val Glu Gly Leu Ser Met Thr Ser Gly Gln  
 100 105 110  
 Pro Leu Leu Asp Gly Cys Leu Ser Tyr Arg  
 115 120

<210> 1920  
 <211> 155  
 <212> PRT  
 <213> Pinus radiata

<400> 1920  
 Leu Ile His Gly Gly Gly Asp Asp Tyr Val Gly Leu Cys Glu Gly  
 1 5 10 15  
 Gly Phe Asp Thr Ala His Ala Ala Ala Arg Ala Tyr Asp Arg Ala Ala  
 20 25 30  
 Ile Lys Phe Arg Gly Val Glu Ala Asp Ile Asn Phe Thr Leu Thr Asp  
 35 40 45  
 Tyr Gln Glu Asp Leu Asp Gln Thr Ser Lys Leu Ser Lys Glu Glu Phe  
 50 55 60  
 Val His Ile Leu Arg Arg Gln Ser Thr Gly Phe Ser Arg Gly Ser Ser  
 65 70 75 80  
 Lys Tyr Arg Gly Val Thr Leu His Lys Cys Gly Arg Trp Glu Ala Arg  
 85 90 95  
 Met Gly Gln Phe Leu Gly Lys Lys Tyr Ile Tyr Leu Gly Leu Phe Asp  
 100 105 110  
 Ser Glu Glu Glu Ala Ala Arg Ala Tyr Asp Lys Ala Ala Ile Arg Cys  
 115 120 125  
 Asn Gly Lys Glu Ala Val Thr Asn Phe Asp Pro Ser Leu Tyr Glu Lys  
 130 135 140  
 Glu Ile Leu Glu Glu Arg Arg Glu Ser Gln Thr  
 145 150 155

<210> 1921  
 <211> 79  
 <212> PRT  
 <213> Pinus radiata

<400> 1921  
 Leu Ile Gly Met Pro Asp Thr Asn Tyr Gly Ser Glu Gln Thr Asn Ala  
 1 5 10 15

Cys	Lys	Lys	Gln	Lys	Arg	Ile	Arg	Ser	Lys	Asp	Ser	Gly	Glu	Asp	Gly
			20					25					30		
Glu	Asp	Arg	Gln	Arg	Glu	His	Pro	Phe	Ile	Val	Thr	Glu	Pro	Gly	Glu
		35					40					45			
Leu	Ala	Arg	Gly	Lys	Lys	Asn	Gly	Leu	Asp	Tyr	Leu	Phe	Asp	Leu	Tyr
	50					55					60				
Glu	Gln	Cys	Gly	Lys	Phe	Leu	Leu	Asp	Val	Gln	His	Ile	Ala	Lys	
65					70					75					

<210> 1922  
 <211> 164  
 <212> PRT  
 <213> Pinus radiata

<400> 1922															
His	Gly	Asn	Arg	Phe	Cys	Arg	Thr	Gly	Ile	Ser	Ser	Cys	Ala	Gly	Ser
1				5					10					15	
Gln	Ile	Pro	His	Cys	Gln	Ala	Glu	Gly	Cys	Lys	Ala	Asn	Leu	Ser	Ser
			20					25					30		
Ala	Lys	His	Tyr	His	Arg	Arg	His	Lys	Val	Cys	Glu	Leu	His	Ser	Lys
		35					40					45			
Ala	Ser	Thr	Val	Ile	Val	Gly	Gly	Phe	Ile	Gln	Arg	Phe	Cys	Gln	Gln
	50					55					60				
Cys	Ser	Arg	Phe	His	Pro	Arg	Ser	Glu	Phe	Asp	Glu	Gly	Lys	Arg	Ser
65				70						75				80	
Cys	Arg	Lys	Arg	Leu	Ala	Asp	His	Asn	Arg	Arg	Arg	Arg	Lys	Pro	Gln
				85				90						95	
Pro	Ser	Thr	Cys	Val	Thr	Ser	Gln	Ser	Gln	Ala	Gly	Thr	Thr	Gly	Leu
			100					105						110	
Glu	Asn	Asp	Asn	Gln	Thr	Thr	Lys	Gly	Ser	Ser	Gly	His	Ile	Thr	Thr
		115					120					125			
Ala	Val	Gln	Asn	Thr	Pro	Asn	Ile	Ser	Arg	Ser	Thr	Ser	Ser	Thr	Ser
	130					135					140				
Pro	Ser	Leu	Ile	Thr	Ser	Val	Pro	Met	Met	Met	Phe	Pro	Asn	Asn	Tyr
145					150					155					160
Lys	Gly	His	Ser												

<210> 1923  
 <211> 125  
 <212> PRT  
 <213> Eucalyptus grandis

<400> 1923															
Asn	Thr	Thr	Phe	Ile	Thr	Pro	Asn	Ser	Lys	Arg	Ile	Ile	Ser	His	Asn
1				5					10					15	
Pro	Ser	Ser	Val	Asp	Arg	Pro	Ala	Glu	Ser	Ala	Ala	Leu	Ala	Lys	Arg
			20					25					30		
Met	Arg	Arg	Ala	His	Ile	Gln	Asn	Ile	Ala	Gly	Asp	Cys	Asn	Leu	Lys
		35					40					45			
Asp	Arg	Leu	His	Ile	Gln	Ser	Gly	Ile	Thr	Tyr	Ser	Gln	Gln	Gln	Arg
	50					55					60				
Ala	Pro	Phe	Ser	Thr	Leu	Ala	Gln	Asn	Phe	Arg	Thr	Ser	Asn	Ser	Pro
65					70					75				80	
Pro	Gln	Gln	Ser	Glu	Ser	Asn	Gln	Lys	Glu	Ala	Thr	Asp	Asp	Ala	His
					85				90					95	
Gly	Thr	Asn	Val	Gln	Gly	Thr	Phe	Leu	Lys	Lys	Asp	Asp	Pro	Lys	Val

		100					105			110		
Thr	Ala	Leu	Ile	Gln	Gln	Ala	Glu	Leu	Leu	Ser	Ser	Leu
		115					120					125

<210> 1924  
 <211> 50  
 <212> PRT  
 <213> Eucalyptus grandis

<400> 1924

Ala	Ala	His	Gly	Thr	Asn	Val	Gln	Gly	Thr	Phe	Leu	Lys	Lys	Asp	Asp
1				5					10					15	
Pro	Lys	Val	Thr	Ala	Leu	Ile	Gln	Gln	Ala	Glu	Leu	Leu	Ser	Ser	Leu
			20					25					30		
Ala	Val	Lys	Val	Asn	Ala	Asp	Asn	Met	Asp	Gln	Ser	Leu	Glu	Asn	Ala
		35					40					45			
Trp	Lys														
	50														

<210> 1925  
 <211> 257  
 <212> PRT  
 <213> Pinus radiata

<400> 1925

Ala	Val	Ser	Tyr	Leu	Arg	Ser	Gly	Ile	Glu	Glu	Arg	Glu	Ser	Glu	Arg
1				5					10					15	
Leu	Thr	Asn	Lys	Met	Asn	Met	Lys	Ile	Arg	Thr	Ser	Asp	Thr	Ser	Thr
			20					25					30		
Pro	Asp	Asp	Gln	Gln	Gln	His	Ser	Gly	Ala	Val	Lys	Val	Ala	Ile	Pro
		35					40					45			
Ala	Val	Ser	Gly	Asp	Ser	Gly	Thr	Ile	Gly	Leu	Lys	Leu	Gly	Lys	Arg
	50					55					60				
Thr	Tyr	Phe	Glu	Ala	Val	Lys	Ala	Ile	Pro	Thr	Ala	Ile	Pro	Ser	Pro
65					70					75				80	
Ser	Cys	Val	Pro	Ala	Ala	Lys	Lys	Gln	Gln	Ser	Ala	Leu	Gln	Gly	Thr
				85					90					95	
His	Met	Val	Pro	Arg	Cys	Gln	Val	Glu	Gly	Cys	Glu	Met	Glu	Leu	Thr
			100					105					110		
Ala	Ala	Lys	Asp	Tyr	His	Arg	Arg	His	Lys	Val	Cys	Glu	Leu	His	Ser
		115					120					125			
Lys	Phe	Pro	Lys	Val	Ile	Val	Asn	Gly	Ile	Glu	Gln	Arg	Phe	Cys	Gln
	130					135					140				
Gln	Cys	Ser	Arg	Phe	His	Thr	Leu	Ser	Glu	Phe	Asp	Glu	Gly	Lys	Arg
145					150					155				160	
Ser	Cys	Arg	Arg	Arg	Leu	Ala	Gly	His	Asn	Gln	Arg	Arg	Arg	Lys	Pro
				165					170					175	
Gln	Leu	Asn	Ser	Thr	Ala	Met	Lys	Ala	Ala	Arg	Phe	Ala	Ser	Thr	Phe
		180						185					190		
Tyr	Asp	Asp	Gly	Arg	Leu	Ser	Ser	Ile	Leu	Met	Ala	Arg	Ser	Pro	Phe
		195					200					205			
Met	His	Pro	Arg	Ile	Ala	Ser	Asn	Leu	Glu	Glu	Asn	Ser	Leu	Asp	Phe
	210					215					220				
Lys	Leu	Gly	Gly	Tyr	Gly	Lys	Gly	Ala	Trp	Pro	Arg	Ile	Lys	Ala	Glu
225					230					235				240	
Asp	Val	Ser	Ser	Tyr	Asp	Gly	Gln	Leu	Ser	Thr	Lys	Tyr	Pro	Leu	Pro
				245					250					255	

Ser

<210> 1926  
 <211> 230  
 <212> PRT  
 <213> Eucalyptus grandis

<400> 1926

Met	Asp	Val	Gly	Ser	Gly	Ser	Trp	Thr	Thr	Glu	Ser	Gly	Ser	Ser	Ser
1				5					10					15	
Pro	Pro	Pro	Leu	Glu	Ser	Leu	Asn	Gly	Leu	Lys	Phe	Gly	Gln	Lys	Ile
			20					25					30		
Tyr	Phe	Gln	Asn	Asn	Asn	Ser	Ser	Asn	Asn	Ala	Ala	Ala	Pro	Lys	Asn
		35					40					45			
Gly	Ser	Gly	Ser	Gly	Ser	Gly	Ser	Ser	Ser	Ala	Ala	Ala	Pro	Ala	Pro
	50					55					60				
Gly	Ser	Gly	Thr	Pro	Pro	Lys	Lys	Val	Arg	Ala	Ser	Ala	Gly	Gly	Gly
65					70					75					80
Gly	Cys	Gly	Ala	Ile	Gln	Gly	Gly	Gln	Pro	Pro	Arg	Cys	Gln	Val	Glu
				85					90					95	
Gly	Cys	Arg	Val	Asp	Leu	Ser	Asp	Ala	Lys	Ala	Tyr	Tyr	Ser	Arg	His
			100					105					110		
Lys	Val	Cys	Gly	Met	His	Ser	Lys	Ser	Ala	Thr	Val	Ile	Val	Ala	Gly
		115					120					125			
Ile	Glu	Gln	Arg	Phe	Cys	Gln	Gln	Cys	Ser	Arg	Phe	His	Gln	Leu	Thr
	130					135					140				
Glu	Phe	Asp	Gln	Gly	Lys	Arg	Ser	Cys	Arg	Arg	Arg	Leu	Ala	Gly	His
145					150					155					160
Asn	Glu	Arg	Arg	Arg	Lys	Pro	Pro	Pro	Gly	Ser	Leu	Leu	Ser	Ser	Arg
				165					170					175	
Tyr	Gly	Arg	Leu	Gln	Ser	Ser	Ile	Phe	Glu	Asn	Thr	Thr	Arg	Val	Gly
			180					185					190		
Ser	Phe	Leu	Met	Asp	Phe	Thr	Ala	Tyr	Pro	Lys	His	Ala	Trp	Ser	Ala
		195					200					205			
Pro	Arg	Phe	Ser	Glu	Arg	Thr	Thr	Pro	Gly	Asp	Leu	Val	Pro	Gly	Pro
	210					215					220				
Gly	Lys	Val	Tyr	Pro	His										
225					230										

<210> 1927  
 <211> 35  
 <212> PRT  
 <213> Eucalyptus grandis

<400> 1927

Gly	Lys	Arg	Ser	Val	Glu	Trp	Asp	Ser	Asn	Asp	Trp	Lys	Trp	Asp	Gly
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Asp	Leu	Phe	Val	Ala	Arg	Pro	Leu	Asn	Pro	Val	Pro	Ser	Asp	Phe	Pro
			20					25					30		
Gly	Arg	Gln													
	35														

<210> 1928  
 <211> 112  
 <212> PRT  
 <213> Pinus radiata



<400> 1928  
 Glu Glu Thr Cys His Gly Asn Thr Phe Cys Arg Thr Glu Ile Ser Ser  
 1 5 10 15  
 Phe Thr Gly Ser Gln Ile Pro Gln Cys Gln Ser Glu Gly Cys Lys Ala  
 20 25 30  
 Asn Leu Ser Ser Ala Lys His Tyr His Arg Arg His Lys Val Cys Glu  
 35 40 45  
 Phe His Ser Lys Ala Pro Thr Val Val Val Gly Gly Gln Ile Gln Arg  
 50 55 60  
 Phe Cys Gln Gln Cys Ser Arg Phe His Gln Thr Ser Glu Phe Asp Gly  
 65 70 75 80  
 Gly Lys Arg Ser Cys Arg Lys Arg Leu Ala Asp His Asn Arg Arg Arg  
 85 90 95  
 Arg Lys Pro Lys Pro Ser Gln Cys Thr Thr Ser Gln Cys Gln Ala Gly  
 100 105 110

<210> 1929  
 <211> 117  
 <212> PRT  
 <213> Pinus radiata

<400> 1929  
 Met Asp Glu Val Gln Val Lys Val Asp Ile Gln Ser Thr Asn Val Ser  
 1 5 10 15  
 Ala Asp Glu Pro Arg Pro Ala Lys Arg Gln Gly Phe Glu Leu Ala Lys  
 20 25 30  
 Ser Pro Glu Asn Val Ala Ser Lys Ser Thr Ala Leu Ser Ser Pro Lys  
 35 40 45  
 Lys Pro Lys Ala Ala Ser Ser Ser Ser Ser Ser Pro Arg Ala Gln  
 50 55 60  
 Pro Pro Ala Cys Gln Val Glu Lys Cys Ala Ala Asp Leu Ala Asp Ala  
 65 70 75 80  
 Lys Glu Tyr Tyr Arg Arg His Arg Val Cys Glu Gln His Ser Lys Ala  
 85 90 95  
 Arg Ile Val Leu Val Leu Gly Leu Gln Gln Arg Phe Cys Gln Gln Cys  
 100 105 110  
 Ser Arg Phe His Val  
 115

<210> 1930  
 <211> 143  
 <212> PRT  
 <213> Pinus radiata

<400> 1930  
 Met Ser Ser Thr Ser Ser Tyr Ser Ser Pro Ser Pro Asp Thr Pro Ser  
 1 5 10 15  
 Gln Ser Ala Ala Val Arg Pro Thr Ser Thr Arg Asp Asp Ser Ser Val  
 20 25 30  
 Met Glu Pro Pro Arg Lys Arg Ala Arg Ala Asp Leu Asn Ala Glu Gln  
 35 40 45  
 Arg Arg Glu Ala Arg Ala His Arg Asn Arg Ile Ala Ala Gln Asn Ser  
 50 55 60  
 Arg Asp Lys Arg Lys Ala Gln Phe Thr Tyr Met Glu Gln Arg Val Ala  
 65 70 75 80  
 Gln Leu Glu Glu Glu Asn Gln Arg Leu Arg Ala Gly Met Gly Leu Ser





tgtagcaag	catgtatgta	ctaactagta	gtttttgtaa	agcatgatgt	cgaaaccttg	60
agtagcaagg	tgaagatggc	tgaagagacg	gttaaaagag	taaccggact	gaaccaatg	120
ctgcatgtga	tgtccgacat	gtcttctgtg	gggtgtgccac	catttgatgg	tagtccttct	180
gatacatcag	cggatgctgc	agttcctgtg	cgagatgacc	caaagcacca	attctatcaa	240
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<210> 1939

<211> 342

<212> DNA

<213> *Eucalyptus grandis*

<400> 1939

acaggttgct	caattaagag	ttgagaattc	tactttactg	aaacgtctct	cggacataag	60
ccagaagtac	aatgtagcag	ctgttgacaa	cagagttttg	gaagctgatg	tcgaaacctt	120
gagagcagag	gtgaagatgg	ctgaagagac	gggttaaaaga	gtaaccggac	tgaaccaat	180
gctgcatgtg	atgtccgaca	tgtcttctgt	gggtgtgcca	ccatttgatg	gtagtccttc	240
tgatacatca	gcggatgctg	cagttcctgt	gcgagatgac	ccaaagcacc	aattctatca	300
aaccaattct	atgtaacccc	gcatcatctg	ctgacgatat	ga		342

<210> 1940

<211> 376

<212> DNA

<213> *Eucalyptus grandis*

<400> 1940

gctgttttca	catctttttg	aacacgcccc	taaagatccg	ccctcagagc	cgctctctgtc	60
cgggtggctgc	tgacattcca	cctagaaatt	cccgaccaag	ttcccccttt	ctaagccaga	120
ttgggaaagg	ttcatatttg	tccaacagta	gtagtggatt	taaattgggga	ggcactcttg	180
ctgctacaag	cagaagctga	ggaaaggcct	ctggtcacct	gaagaagacg	agaagctcct	240
caggtagatc	acgcagtatg	gccatgggtg	ctggagctct	gttccctaagc	ttgcagggtct	300
gcagaggtgt	gggaagagct	gcagattgag	gtggattaac	tacctgaggc	ctgatttgaa	360
gaggggcaca	ttctct					376

<210> 1941

<211> 169

<212> DNA

<213> *Eucalyptus grandis*

<400> 1941

aggaattgca	gcacctggaa	cagcaattga	gtggggcctt	atcatctgtc	aaggagaaga	60
aggagcaatg	gcttctggag	cagctggagc	gttcaagatt	acaggagcag	agggctatgc	120
tggagaatga	aactctgcgc	agacaggctg	acgagcttag	aggtttcct		169

<210> 1942

<211> 188

<212> DNA

<213> *Eucalyptus grandis*

<400> 1942

cgagatctcc	gtcctctgcg	acgccgacgt	cgccctcacc	gtcttctcca	ccaagggcaa	60
gctcttcgag	tacgccaccg	actgttgcac	ggagaggatc	ctcgagcggt	atgagagata	120
ttcatatgca	gagagccagg	ttctcacaaa	caatgccgaa	accaatggga	actggacttt	180
ggaacatg						188

<210> 1943

<211> 321

<212> DNA

<213> Eucalyptus grandis

<400> 1943

ctctttcttc	ctcaatcgga	aggggtcttc	aacccaatgg	acggcaacct	ctcattgcaa	60
atcggtata	atccgacatg	tctggacgag	atgaatgctt	cggtttcgag	ccaaaatgtt	120
gctggattca	ttccgggatg	gatgctttga	acttactaca	tcgacttgga	gtgtgaatcg	180
agctggtgaa	atttgtgcgt	gtgtcccttg	taaaattgcg	atccgcaaga	caataagtac	240
ataatatttt	ggagctgtga	tgacataaaa	agaggaaggc	caccctttcc	tctctcatga	300
tcagaacttt	tgataatgtc	t				321

<210> 1944

<211> 905

<212> DNA

<213> Eucalyptus grandis

<400> 1944

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atctctggag	ctctcactat	gagaagatgc	aagagaacct	gaggaagctg	aaggagggtga	180
acaagaagct	tcagctggag	gtcaggagga	ggttcgggga	aggactgaat	ggtatgagct	240
tatcggaatt	gtgcgggtctt	gagcaagata	tggaacaacg	cgttagcctg	atccgtgaac	300
ggaagtacaa	gacgctcggc	aatcaaactc	acaccgccag	gaagaagaaa	aagaatgctg	360
aggaaataaa	caaaagtctc	ctgcaagact	ggaccaatct	gatcaagcat	ctgagggagg	420
acgaccgcga	cttcgggaatg	gtcgacaacg	gcagggatta	cgaggctgtg	atcggggtata	480
cagacgccgc	cgccgccgct	cgcttgtaca	ccctgcgcct	gcaaccggac	cagcccaatc	540
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tcggaaacct	ttccgacgtc	ctcatattgt	ctattcattc	tgtctaaggg	ccgattccat	660
ctggaatect	gacttcattg	gtatgtcgaa	gtttaggact	ttgttatgtc	atcctattca	720
gcagctaagt	ttgttcttat	cagaagctgt	tcctattatg	gaccgagggc	gatttccctc	780
agggcatcat	gtgttttaag	acaagtctat	atataagact	actttaaaac	aatcgaatga	840
gttggtgcaa	aaaaaaaaaa	aaaaaaaaaa	aaaaaaaaaa	aaaaaaaaaa	aaaaaaaaact	900
tcaag						905

<210> 1945

<211> 337

<212> DNA

<213> Eucalyptus grandis

<400> 1945

gcggcaagga	gcaactaaat	gtaacactct	gattactagg	gacctctcat	tgtcttttga	60
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acttagggga	gcatctaaaa	tgaggaatg	ggctcatcaa	gaaggcctac	gagctctccg	180
tcctctgcga	catcgacatc	gccctcatca	tggtctcccc	ctccgaccgc	gtgagccact	240
tttcgggaaa	aagaaggatc	gaggatgtct	tgaccggttt	cattaacctc	accgaccaag	300
aacggacact	cctagatgtc	caggatcggc	gcacacg			337

<210> 1946

<211> 301

<212> DNA

<213> Eucalyptus grandis

<400> 1946

caaaccttcc	cagggtttcc	atttccattt	ccttcataga	atgctccggt	cctttctttat	60
cccttttttg	gtactctctg	ttctcatggg	cctttcataa	agttttctca	tctcttaacc	120
aagactggta	agagagagag	agatagagag	tttattagtg	ggtgagggtg	ttaaaaaatg	180
ggaagaggga	gggttcagct	gaagaggata	gagaacaaaa	ttaacaggca	agtgaccttt	240
tccaagagaa	ggaatgggct	cctcaagaag	gcttatgagc	tctcgtcctc	ctgtgatgct	300

<210> 1947  
 <211> 354  
 <212> DNA  
 <213> Eucalyptus grandis

<400> 1947  
 gccaaagtagc accccgtttg cccacacatta tctgtgatat gtaaactgtg tgggcctctg 60  
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 gcaaaatacc attaacggat cttgcagcat ggaaagcatt ttagagaggt acgagagata 180  
 cacttatgcg gagcgacagc aagtggccac tgattccctt caagtgcagg gaagttgggtc 240  
 gcttgaatat cccaagctcg tggctaggat cgaagtcttg cagaggaaca taagaaactt 300  
 gagcggagaa gagcttgatc ccttgagtc tggagagctg cagtatttgg agca 354

<210> 1948  
 <211> 456  
 <212> DNA  
 <213> Eucalyptus grandis

<400> 1948  
 gtttcctctt caggagaaag caaggagctg tagaggaatt gaaaatgggtg caagaagtcc 60  
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 gagatcgccg atgggatttt atagcgaagg tatcagggtt gaagggtggcg ggagaaaata 180  
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 gctttattcc aggattgaat agaacaggaa aaagctgcag actacgctgg gttaactacc 300  
 tgcacccctg cctaaaacga ggggaagatga cacctcaaga agagagactg gtgctcgaac 360  
 ttcattccaa atgggggaaat agatgggtcaa gaattgctcg caagctacca gggcgaacgg 420  
 acaatgagat aaagaactat tggaggactc atatga 456

<210> 1949  
 <211> 382  
 <212> DNA  
 <213> Eucalyptus grandis

<400> 1949  
 atttttcaac tcccccccc caccgccgaat caaatcccat tccctctctc cctccctccc 60  
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 catcaatcaa gctcaagcac catcacctca agaagaaaga aggaaagaaa gagagaagga 180  
 ccggagaccc gacagagggg cgcgcgcgca cgagacatgg gacgatcccc ttgctgcgag 240  
 aaggcgacac ccaacaaggg cgctgtggacc aaggaagagg accagcgccct catcgactac 300  
 atccgcctcc acggcgaagg ttgctggcgc tccctcccca aatctgcgag gcttctcagg 360  
 tgcggcaaga gctgcaggct ca 382

<210> 1950  
 <211> 371  
 <212> DNA  
 <213> Eucalyptus grandis

<400> 1950  
 gttgagcagg tacagtttct tgaaaagagt tttgaagtag agaacaagct cgagccagat 60  
 cgcaaaatcc agttggcaaa agacctcgga ttgcagccac gacaggtagc gatatggttt 120  
 cagaatcgtc gtgcacgggt gaagacgaag cagctagaga aggattatga aactttgcaa 180  
 gcttctttta acacctgaa gtcagactac gacactctca tcaaggagcg gaatgatctg 240  
 aaagccgagg ttcttaacct cacggacaag ctgcttcaca agggaaatga gaaggagagt 300  
 tccgagtcgt ccagcaaatc atctcaaggg ctattccaga accccattgc tgattctggt 360  
 tctgaggacg a 371

<210> 1951  
 <211> 356  
 <212> DNA  
 <213> Eucalyptus grandis

<400> 1951  
 aaaaagcata agctccctga cccataatcc ctagtatcga tggccagggt tcccagggtt 60  
 gacaagagca acagcaagaa gacagtgaag aagggcgctt ggagtgcgga agaagaccag 120  
 aaactgggtg cttatatcaa gagatatggc atttggaact ggactcacat ggccgaaccc 180  
 gccggttttag cgagaacagg aaagagttgc cggcttcgat ggatgaacta tctgaggccc 240  
 aacatcaagc atggaaacat cacccaagaa gaggaagaaa tcattattaa cttgcaccga 300  
 gttcttggtg accggttgggc cagcatagcg agcagacttt caggaaggac ggacaa 356

<210> 1952  
 <211> 475  
 <212> DNA  
 <213> Eucalyptus grandis

<400> 1952  
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 gacaaggaat atggcgagag agaagatcaa gatcaagaag atagacaatg tgacggcgag 180  
 gcagggtgacg ttttctaaga ggagacgagg gcttttcaag aaagccggag agctgtcggg 240  
 cctgtgcgat gccgaggtcg ctgtcgtcat tttctcggct accggcaagc tctttgagta 300  
 ctccagctcc agcatgaagg aactcttga gaggtacacc ctccaccaca ataactttga 360  
 gaatatggac caaccttctc tcgagctgca gctggagcat agcaataaca tgagggttaag 420  
 caaggaagtg gcagaaaaga gccatcgact caggcagttg aggggtgagg atctt 475

<210> 1953  
 <211> 541  
 <212> DNA  
 <213> Eucalyptus grandis

<400> 1953  
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 aggacttgca caactttcat gggggcagca agtgcttgtg ggctcaagct cttcgggtgtt 180  
 caacttgacc tatcttcttc ttctctccct tcatcatcag catctagtgg ttctgctcat 240  
 ccttattcac ttgtcataaa gaagagcctc agcatggatc gtctgtcttc ttctcggcc 300  
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 aataagacct ccctcggata tctctctgat ggctcggcg ctagatccca ggagaaaagg 420  
 aaaggagtgc cgtggacgga agaagagcat cggacattct taatggggct agagaagatg 480  
 gggaaaggcg attggagagg catctccagg aactatgtga ccacgagaac cccaacccaa 540  
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<210> 1954  
 <211> 437  
 <212> DNA  
 <213> Eucalyptus grandis

<400> 1954  
 cgcggttggc gtcagataga agagcatgta ggaacaaaa ctgcagttca gatacgaagt 60  
 catgccccaa agttcttctc taagggttgc cgcggggtaa gtggcagcag cgagggtgtg 120  
 attaaaccaa ttgaaatacc tcctccacgg ccaaagcgga agccaatgca tccatatcca 180  
 cgaaatctg tcgattcaaa ggaggtgaaa ctgtcctatc aacaagagag gtctccatct 240  
 ccaatctctt cggtagcaga tgaaaacact ggatctccta cttcagtttt gtctgctcat 300

ggttcagaca	tgctgggatac	agcatctttg	catcaacaaa	acagatgctc	ttcaccgact	360
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ttcaaagaag	aagataa					437

<210> 1955  
 <211> 470  
 <212> DNA  
 <213> Eucalyptus grandis

<400> 1955						
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ctccatcggc	gagaactctg	ataaagcatc	cctcggctat	ctgtcggatg	gcctgctggg	120
tagatcccaa	gagaagaaga	aaggagttcc	atggacagag	gaggaacaca	gaaccttctt	180
ggtggggctt	gagaagcttg	ggaaggggtga	ttggagaggc	atctctagga	gctatgtgac	240
cacaagaaca	ccggcccagg	ttgcaagtca	tgctcagaaa	tatttcctcc	ggcaagtgag	300
cttcaacaag	aaaaagcggc	gctcgcgcct	ctttgacatg	gttgatgtca	aaaccgcggc	360
gggtgatcgt	ttaggcagtt	tgacggccaa	gccgagtgag	tcagttccta	attgcaaaat	420
gggaaccttg	atgtctcatt	tgcaagttca	tgatgccaga	accactcagc		470

<210> 1956  
 <211> 384  
 <212> DNA  
 <213> Eucalyptus grandis

<400> 1956						
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catccttcaa	agtgcattgt	ttcacagctt	cctgtgagct	cccaaattgt	ccagctccat	180
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acaaccacaa	agtcagagtc	gaatcaatag	gacgtgggtg	gtccaacaac	tccggcgcct	300
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tcattcatta	gtttttgcat	atgc				384

<210> 1957  
 <211> 388  
 <212> DNA  
 <213> Eucalyptus grandis

<400> 1957						
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gaaaggggtcc	atggacagaa	caagaagatt	tccaactggt	gtgctttgtt	ggactttttg	120
gagatcgccg	atgggatttt	atagcgaagg	tatcaggttt	gaagggtggc	ggagaaaata	180
ataggattga	atagaacagg	aaaaagctgc	agactacgct	gggttaacta	cctgcacctt	240
ggcctaaaaac	gaggggaagat	gacacctcaa	gaagagagac	tggtgctcga	acttcattcc	300
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<210> 1958  
 <211> 455  
 <212> DNA  
 <213> Eucalyptus grandis

<400> 1958						
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attgtctatc	gagcaagttc	tgtacttgga	gaagagcttt	gagactgata	acaagcttga	180
accagataaa	aaagttcagc	ttgccaaaga	actcgggttg	caacctcgtc	aagttgctat	240



ttggttccaa	aatcgaagg	caagatggaa	aactaagcaa	atggagaagg	atttcgataa	300
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gaagctcaaa	gctgaggtta	ttcatttgac	acaccagcta	gagcaaagga	gcaacggaat	420
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<210> 1959

<211> 965

<212> DNA

<213> Eucalyptus grandis

<400> 1959

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tgattttcgc	caacccccca	atatttatct	tttctttctt	tccttttttt	cgcttctctc	180
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gcgtagcgtg	tactatctcg	tctcaggtgg	tgtttcgctt	ttatggggat	gtccttcggc	300
gggggcgttt	cgaagattct	tgtagctccg	tagcttgctc	tgccgggattt	ggttggggcg	360
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ttggtggcgg	cggtgatgat	gattcatggg	tagtaggact	agagttggcg	gtggtggaga	600
tgatggcaga	gttgtgaacg	gcatgccgag	cttcgtccct	caattaccca	cttcgaattc	660
catgggatca	gaaggaaact	ccattcgttc	ttctcgaatt	acagactttg	gaacacttga	720
gcagtctctt	ggataccgca	tagaagatgc	agttgacctc	agcagaaatc	ctgtcttcaa	780
tcagatgaaa	tcaagtgcc	aggctcttg	ggctgatgtc	caatttggct	ctttgaataa	840
gtccctttca	tcctcagaca	gaaatctttc	tgtgaatatt	gtggggtctc	agactctatc	900
tatgcataga	gaatcacaat	caaacttagt	atcaataccc	ggtgctcatc	gtgagaactg	960
ggggg						965

<210> 1960

<211> 599

<212> DNA

<213> Eucalyptus grandis

<400> 1960

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tctctcgccg	tccaaccgta	cggactctcg	gttttgccgc	gaaacggaac	ggagcggacc	120
cggtccctcg	ccgtcgccgg	tgcgagagaa	tgcttcccc	acgcgcgcgc	acccccgacg	180
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tgccgggtgg	cgtggactcg	atgaggaagt	gcgtgagcct	gaacaacctg	tctcagtacc	300
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aggccgcca	aggctacgca	tcggccgacg	acgcgcgcga	caaccccgcc	gggtggccgcg	420
agcgcaagag	aggagtctct	tggacagagg	aggagcacag	gctgttcttg	ttgggattac	480
agaagggtgg	gaaaggagat	tggagagcga	tatccaggaa	ctttgtgaag	acccgcacgc	540
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<210> 1961

<211> 377

<212> DNA

<213> Eucalyptus grandis

<400> 1961

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tatggacggg	tcgacgagta	ttaagcccga	gatgcttatg	tcgggttcag	aggatgcac	120
tgctgcagac	gccaaagagg	ccatgtctgc	tgcaagctt	gctgagcttg	caactgattga	180
tcccaagcgt	gcaaagagga	tctgggcaaa	cagacaatcg	gctgcaagg	caaaggaaag	240
gaagatgcga	tacatagctg	agctagaacg	gaaagtacaa	actttacaaa	ctgaagcaac	300

aactttgtct gcacagctga ctctgctgca gagagacaca aatgggttga ctgctgagaa	360
tagtgaattg aaactgc	377

<210> 1962  
 <211> 317  
 <212> DNA  
 <213> Eucalyptus grandis

<400> 1962					
aagtaaaatc ccctctcggc	tcctctttct	tttatgtaca	ttccaagaac	agcgacagat	60
aaggccccga gatctgcaag	tcttcttcac	actactcgct	gatggctgat	tctgaacatt	120
cttcttctga tgacacttac	gtggactcta	gagaagagac	aagtgaagaa	tcaaagctag	180
atttctctga agatgaggag	acgcttgtaa	ttagaatgta	caacctggtt	ggagaaaggt	240
ggctctaat tgctggtaga	atcccaggga	ggacagctga	agaaatcgag	aagtactgga	300
attccagata ttcaaca					317

<210> 1963  
 <211> 471  
 <212> DNA  
 <213> Eucalyptus grandis

<400> 1963					
ctcctctctc ataagtcata	attcacaggc	gcggcacaag	gcacgaaaag	ataaaaaaaaa	60
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aagaaacgct gattccgagt	tcttccgagg	ctcttgagtc	cgccctgggtt	cctacttcct	180
cgaccgctca tcatggttca	aaatcagtg	tcaattttga	ggacgtttgt	ggaggaggag	240
acaccaatac tgcgccgagg	ccatacctcc	gacagattga	tctgaaggaa	gaagccgtcg	300
aagaggacta cggcgacggg	aactttcagc	ctcctggtaa	gaagcggcgg	ctatcggccg	360
accaagtcca tttctcagag	aggcactttg	aggtcgagaa	caagctcgag	cccagagga	420
agatccagct cgccaaggac	ctcggcctgc	agccgaggca	ggtcgcgac	t	471

<210> 1964  
 <211> 372  
 <212> DNA  
 <213> Eucalyptus grandis

<400> 1964					
tgacactgaa gattcgaaga	agaaagagag	gcatattgtg	acttggtctc	aagaggagga	60
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aaagttcaag gataaaacga	cgagacaatg	cagaaggaga	tggtacacat	atttgaattc	180
tgacttcaag aaaggggggt	ggtcacccga	ggaagatgtg	cttttatgtg	aggctcagaa	240
gattttcggc aacagatgga	cagaaatagc	aaaggtgggt	tcaggcagga	ctgacaatgc	300
cgtaaaaaat cggttcacia	ccttgtgtga	gaaaagagca	aggtacgaag	ccttagcgaa	360
agagaataca ct					372

<210> 1965  
 <211> 424  
 <212> DNA  
 <213> Eucalyptus grandis

<400> 1965					
atgcaatttt gagcgtcgcg	agtaagccgg	agcgagggga	gagcgatggg	caggcagccg	60
tgctgcgaca agcttggggg	gaagaaaggg	ccgtggacgg	cggaggagga	ccggaagctg	120
gtcaacttca tactcaccga	cggccaatgc	tgctggcggg	ccgtcccaa	gctcgctggg	180
ctccgcccgt gtggcaagag	ctgccgcctc	cgctggacca	actacctccg	ccccgatctc	240
aagcgtggcc tcttcaatga	agccgaggaa	agcctgggta	tcgatctcca	tgccactctc	300
ggcaataggt ggtccaaaat	agcagctaga	ctacccggaa	gaacggacaa	cgagatcaaa	360

aaccactgga acacccatat caagaagaag ctcattagga tgggcattga tccagtcact 420  
caca 424

<210> 1966  
<211> 427  
<212> DNA  
<213> Eucalyptus grandis

<400> 1966  
cccggctccc gctcgtccaa tgggcgcgtc gagaggaaga aaggtaaccc atggacggag 60  
gaagagcatc gaaggttttt aattgggtctc cagaaattgg gtaaaggaga ctggcgaggg 120  
atagctcgtg actttgtgac tacaaggact cctactcaag tggcaagcca tgcccagaag 180  
tattatatcc ggcagagtaa tgctggccga agaaagaggc gctccagcct ttttgacatg 240  
gctccagata tgggtttgtct tctctatgat gttgcttctg cacattcatt gcactccgtt 300  
caaatatccg gctcgtgcat gttttaagat gttttcttag ctcattgctga catatgcttt 360  
aaccatgcac tagtgatgat tacatgataa gggccattcc tcttagacct ttgggacaca 420  
tcaaattg 427

<210> 1967  
<211> 373  
<212> DNA  
<213> Eucalyptus grandis

<400> 1967  
cttgaaactt ctccgctctt ctcttctctc tcttgaaagg aaggatgaga aaaccttggt 60  
gtgacaagca agacacaaac aaaggagcat ggtcgaagca agaagaccag aagctcatcg 120  
actacattcg caagcacggc gaaggatggt ggcgaaactct tcttaaggct gccggtctcc 180  
tccgttgccg gaagagttgt aggctaagat ggataaacta tttgcggcct gacctcaaaa 240  
gaggcaactt tgctgaggat gaagaggatc ttatcatcaa gcttcatgct ctctaggca 300  
accgatggtc gctaattgct gggagattgc ccggacggac agacaatgaa gtgaagaact 360  
attggaactc aca 373

<210> 1968  
<211> 197  
<212> DNA  
<213> Eucalyptus grandis

<400> 1968  
ggtcgcccga ggaagacgag aagctcttca actacatcac ccgattcggc gtcggctgct 60  
ggagctctgt accgaagctc gccggactcc agagatgtgg aaagagttgc aggttgaggt 120  
ggataaacta cctgaggcct gacctcaaga ggggatggtt ctctcaagaa gaggaggatc 180  
tcattgtcag tctccac 197

<210> 1969  
<211> 365  
<212> DNA  
<213> Pinus radiata

<400> 1969  
gcaaaatctt atttgggttc ccttacagaa actatacagt ccctgaatgc tgagcttgaa 60  
agaactagat cggagttggt tgaagcaaag aagagagagg aagagattat ttcaaaagaa 120  
gctgaaagag tagagaagaa taagagagaa gtggaaaatc tggaaactca tcttctgcaa 180  
actactgcag aagctgggag agctaaactg gaactagaga ctgcttatga agaggtgcag 240  
agcgcaagac ttgaaactgc gcaattgagg gctgcttttg aagccacaga gggaaaattt 300  
gaagcaatgc tgagtgcag taggttgagg gcagagcatg tcaaaggagc tattgagaag 360  
tataa 365

<210> 1970  
 <211> 260  
 <212> DNA  
 <213> Pinus radiata

<400> 1970  
 gaaatattgg tgactcaaat agagcaactt caaagaaagg aacggatggt tagcgaagag 60  
 aataattttc tccgaaagcg gattgtcgat cccattccg ttttgacaac tcttgcaagt 120  
 ggatctggaa gcctccaaag aagtgaagtc gagactcaac tggttatgag accgcccagt 180  
 tcaaatgctg attttctttt taatagttct cattgataat cactgtattc atatctttgt 240  
 tattaattta ttatgaaatg 260

<210> 1971  
 <211> 332  
 <212> DNA  
 <213> Pinus radiata

<400> 1971  
 tctctctggg gtgggggggca ctcaaaatgg ggaagacgaa gatggagatt aaacgcattc 60  
 aaaaccctag ccgcccgcag gttactttct cgaaacgcaa gaacggattg ctaaaaaagg 120  
 cattcgagct ttctgttctc tgcgatgctg aagtcgcctt gatcattttc tcggaaactg 180  
 gcaagatctg cgagtttgca agccacgacg acatggcaac aatactggaa aaatatcgaa 240  
 tatacacgga aacacatgga aacatggagt cctcgtcggg ccaaagcgtg aagattgggtg 300  
 aatcacaact caaagcgttg cgtgagaaga tg 332

<210> 1972  
 <211> 413  
 <212> DNA  
 <213> Pinus radiata

<400> 1972  
 cttcgagggt ctaattggctg cacaatacct tcaattggat tgacaagcat agaacgcgtg 60  
 gaagttcaga ctcaactggg catgagacct ccacatgcc aagagatgga cgacaacttt 120  
 atggatgttg acaacgtgcc actatctgga tgatgttttt ctgtttctgt tacataatat 180  
 ggccactgat gacaccatac tttatttttg tatttgcttt aaaaatgact ctttctttca 240  
 ctgacttttg atggactgta tgatagttga tttttggtcc tcatacttta gcaaatgggt 300  
 atgggtacct gttttggccc gaggccttgg aggatctact ctctatatgt tactgtttta 360  
 ctttttacat ttgtgctcac tgactcatat gatggacttg cccacatatg atg 413

<210> 1973  
 <211> 521  
 <212> DNA  
 <213> Pinus radiata

<400> 1973  
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 accctgtgaa ggcagaggag cattagtcac catggttgat cacaggaact tagaggcttc 180  
 aagtgtccct gaagcacttc gtcccttata tgagtcacat acattctttg cacagaagat 240  
 gacagttgag gcttcttata atcttcaagg taaagttcaa ccggaaatga tttccttata 300  
 aaaaaaactc caacagccat gtaatgtacg gtcatacagt caacggcttt gcagaggctt 360  
 taatgaggca gtcaacacat tacctgatga tggctggatg tcattgtcca aagatgggct 420  
 gggggatgtc actattttgtg taaagtcttt gtcaaattgc cgaaaccaa tgtcatcgctc 480  
 aaatagccta tgttcaacag acatgggcat cttgagtga a 521

<210> 1974  
 <211> 461

<212> DNA  
<213> Pinus radiata

<400> 1974

gaaaatgaaa	gccttcgagc	tcgtttaagg	catatgaatg	gcgatgacat	caattcgttg	60
aagcttcccg	aactcttcca	tctcgaacag	cagcttgaaa	cggccgcaac	ccaagttcga	120
agaagaaagg	atcaagtttt	agacaacgaa	aaaatcaagc	gaaggaacaa	gatgcgccgt	180
aaggaagacg	agaacatcat	tcttcacgaa	atgcttgacc	agcaccatgg	acaaatggag	240
gaggataacg	ctcagattaa	tttcttattt	tgccaacccat	taaatagatc	ggatactact	300
ttccctgcat	cactactccg	cctgcaacca	aatcagccaa	atttgagga	tattggatat	360
taattactga	acggaccatc	tgtgtgcac	ataatgagaa	ggtcatggac	ttctcagtaa	420
cagtcaatta	tgaaaattcg	aagtttgtga	ggaaaaaaaa	a		461

<210> 1975

<211> 499

<212> DNA

<213> Pinus radiata

<400> 1975

tgagccccc	ggtggagcac	cgacctttca	gcccacatga	agacgccacc	atcatacaag	60
cccatgcgcg	gcatggcaac	aagtgggcta	cgattgccc	cctcctaccc	gggcgcaccg	120
acaacgctat	caagaaccac	tggaactcga	ctctgcgacg	tcgctatcat	ggcgagaaag	180
accagagcaa	cgggctagct	gtgaacttgg	agtcggcagc	tgaggacaaa	gaaacgatga	240
ctccgatgac	acctgtcaca	gccacggcaa	cggcaacggc	aacggcaatg	ccagtggctt	300
tagtggtccc	aacggctgca	gacaacgtca	ggaagcggag	caacagtagc	tcagcgccta	360
atgacaatcc	aggagatgcc	gaggtcgaat	cctgtaggct	taagaggctc	aatttttctg	420
aatccccatc	tagttctgaa	aatattaata	ataataacaa	taatgaagaa	gctgttagtg	480
gccattgcaa	ttcggccgc					499

<210> 1976

<211> 419

<212> DNA

<213> Pinus radiata

<400> 1976

ctcagagctc	gacaaaacct	acatacatte	gtctgtcatc	cctcccagaa	atacctagt	60
agggcgatcg	aggtcgaaag	gggcatttta	cgccattgaa	gcggtgtgca	tagggccaac	120
tctgagaact	gattgtgtct	tccttcggag	ggagaggggt	agcgagggtc	agaaagagag	180
agaaagagaa	agtagtccta	agggactgtt	taaaatgggg	cgagggtccag	tccagctgag	240
aaggatagaa	aacaaaataa	atcgtcaagt	aacgttttcg	aagagacgga	atgggctgat	300
aaagaaggcg	tcagagctgt	caatcctgtg	tgatgcggaa	gtggccttaa	ttgtcttctc	360
caacaaaggc	aaactctatg	agttctccag	ttccagtatg	accaagattt	tggaagat	419

<210> 1977

<211> 459

<212> DNA

<213> Pinus radiata

<400> 1977

gcaagctggc	ctccagcggt	gcgggaagag	ttgcaggctt	cgggtggatca	actacttgag	60
accagatctg	aagcgaggca	cattctctcc	gcaggaagaa	aatctcattg	ttgaactgca	120
ttcagtcctc	gggaacagg	ggtctcaa	agcaacacac	ctgcccggaa	gaactgataa	180
cgagatcaag	aacctctgga	actcgtgcat	taaaaagaag	cttaggcaac	gaggcataga	240
tcctaacacg	cacaggcctc	tcagcgaggt	gaatgccgag	gcaggggatt	ctaagaacga	300
taacagcaat	aaagaagtcg	aaactcaggc	agccatggac	gaatctcatg	tttctgcagg	360
gaacgaattc	aagcatctga	atgcaattcc	tagggctgat	acggccaatc	ctaaattctt	420
tcatgttccc	gttgaggaca	acactttgat	tgctagcga			459

<210> 1978  
 <211> 331  
 <212> DNA  
 <213> Pinus radiata

<400> 1978  
 ggagagtgc ccaccgagat ccacgcagtc gaagagaaa agaaatctgc aggaggagtt 60  
 gaaaatgagg tgcacacgat ggcaaggctt cccattttcc tccaaaccaa aagttaaaaa 120  
 ggggtctctg tgccttgagg aagatgagaa actcatcaat tatatgatga agaacggcct 180  
 tctcggctgc tcttgaggct atgtggccaa gcagattggg ctgcagagat gcggaaagag 240  
 ttgcagactg agatggacta actacttacg tcttggcctt aagcgggggtg caatttcgcc 300  
 tgaggaggag caattgatca tacacttaca g 331

<210> 1979  
 <211> 375  
 <212> DNA  
 <213> Pinus radiata

<400> 1979  
 gttctatcaa acttcttatt caccataccc atttccatta gacggctgaa ttctcagatc 60  
 caatttggtc cagccctcta gcgacagaag aagatgggaa gagcaccctg ttgtgacaag 120  
 gcaaagtgtc aaaaaggacc ttggtcacca gaagaagaca caaaactcaa ggcgtttatt 180  
 gaacagcatg gactgggtgg caattggatt gctcttccac agaaagctgg tctgaaaagg 240  
 tgtggaaaga gctgcaggct tagatgggtt aactatttga ggccagatat aaggcatggt 300  
 ggtttctcag aagatgaaga taacatcatt tgtagcctct atgcaagcat tggaagcatg 360  
 gtgtctataa ttgca 375

<210> 1980  
 <211> 749  
 <212> DNA  
 <213> Pinus radiata

<400> 1980  
 gagcttcatt cgccattatt ggggtttcaat tcgatcttga tttgccagag acgatgtgaa 60  
 ttaccattct gtgggcaaaa gcgagagagg aggagaatgg tgaggggaaa gaccagatg 120  
 aaaaggatcg agaacgacac gagcaggcag gttacgtttt ctaagcgcag gaatgggtta 180  
 ctgaagaaag cttatgagct ctctgtgctc tgcgatgccg aagtgggact tataattttc 240  
 tcaccaagag ggaaactata tgaattcgcc agtcccagca tggaggagat tttggaaaag 300  
 tataaaaaac gttcgaagga aaatggcatg gtcagacaa cgaaagagca agatactcag 360  
 tattccaaac attccaaaca aaagctcgca aatatggaag aacagattag gattcttgaa 420  
 tcaacccaaa gaaagatggt ggggggaaggg ttggaatcgt gttcaatggc agaattaaat 480  
 aagttagaga gccaaagctga acgaggattg agccatatac gggctcgaaa gacggaaata 540  
 ttggttgacc aaatagaatg tcttaaaaagg aaggaacgct tcttaagcga ggagaacgcc 600  
 ttactcagta gaaagtgggt tgatcgtaaa tccgtggacg gttccgggtc aacatcatct 660  
 tcaattggat tgggaagcat cgagcagatc gaagttgaga cacaactggt tataagaccg 720  
 ccaaatgcac aggatcactg ttctgtaaa 749

<210> 1981  
 <211> 339  
 <212> DNA  
 <213> Pinus radiata

<400> 1981  
 cttggctggg gaagacaacc cgctgcatta cggacattta gccagagatt gtgcaagggt 60  
 ttcaatgagg cagttaatgg cttcacagat gatggatggg ctttgatggg taacgacgga 120  
 atggaggatg taactattct cgtcaattca tctccaagca aactgttcgg tcaacagttt 180

gcttcttccg	atgggcttcc	tgctcttggt	gggggcatcc	tatgtgccaa	ggcttctatg	240
ctattacaga	atgttctcc	agcattgctt	gttcgtttct	tgcgagaaca	tcgatcagaa	300
tgggcagata	gtaatattga	tgctattca	gcagcctct			339

<210> 1982  
 <211> 373  
 <212> DNA  
 <213> Pinus radiata

<400> 1982						
ggattccgac	ccttccggct	aaagctgctt	catttctgtg	tgtattgaag	atggggagat	60
ctccctgctg	tgaaaaagct	catacaaaca	aaggggctg	gaccaaagaa	gaggacgatc	120
gcctcatcgc	ccacattcga	actcacggcg	aagggtgctg	gcgctcgctt	cccaaggccg	180
cagggtgat	gcgctgctgg	aagagctgca	ggctccgatg	gataaactac	ctgcgtcctg	240
atctgaagcg	tggaacttc	tcagaagaag	aagacgaact	catcatcaaa	ctccactccc	300
tactcgga	caagtgtct	cttattgcag	gcagattgcc	cgggcggacg	gacaacgaga	360
taaagaacta	ctg					373

<210> 1983  
 <211> 404  
 <212> DNA  
 <213> Pinus radiata

<400> 1983						
aggcaataag	tgttattatt	gagaacttga	ctgtggctga	gattttcagg	gatggaccgt	60
tcaaactctg	cgactggaga	agaagatgta	ctgtcaagat	gcagggaag	aaaacgtttc	120
atgaagctgg	caattgagaa	caggataaaa	ctagcaacag	ctcatgtggc	ttacatggat	180
tctcttaggc	gtatgggac	cggctctcgg	ctttttgctg	aaggcgaaac	gatgtcggag	240
tcttctatt	ccacatcacc	catagggact	tctgaacttg	ctgttgtctt	gcctgagaaa	300
tccgtatccc	catctccatt	tccatctcca	tccccttcac	tttctcaacc	tcaaagtccc	360
cgttcagaga	gagcagaatc	tcgatctcca	ctcgacagct	tctc		404

<210> 1984  
 <211> 332  
 <212> DNA  
 <213> Pinus radiata

<400> 1984						
cggacggctt	ggttcaaaac	tctcgtgaaa	gaaaaaaagg	cgttccttgg	acggaagaag	60
aacataaaat	gtttttatta	gggttcaca	aattgggaaa	aggcgactgg	agaggtatct	120
ccagaaactt	tgtcacttcc	agaactccta	ctcaagttgc	tagccacgca	caaaaatatt	180
ttcttaggca	gagtaatttg	aacaaaagga	aacgaaggtc	gagcctgttc	gatatatcca	240
ctgattcgat	ggaagattgc	tatcaaggaa	tcccgagct	gtcaccgggtg	atgcacgatc	300
tcagcctggg	ccagaattca	tctctgacct	ct			332

<210> 1985  
 <211> 526  
 <212> DNA  
 <213> Pinus radiata

<400> 1985						
ctcctctccc	gtctccaaac	ccaagctaag	gaaaggcctc	tggtcgctg	aggaggatga	60
taaaactcatc	aactacatga	tgaaaaacgg	ccagggttgc	tggagcgatg	tcgccaagca	120
agctggtctg	cagagatgcg	gaaaaagctg	taggctgagg	tggattaact	atttaaggcc	180
cgacctcaaa	cgcggtgcat	tttcacccca	ggaagaacaa	ttgatcatac	acttgcattc	240
cattctcggc	aacaggtggt	ctcagattgc	agcccgtttg	cccggacgta	cggacaacga	300
gatcaagaat	ttctggaact	cctgcataaa	gaagaagttg	aaacaccttt	cggcctccac	360

caacaacagt	aaatctatct	ctgcaccta	tcgtaccagt	accatgaatt	catcgatcac	420
gcccttttct	gaatcgtctg	ccgagccatt	ggagggtcatg	gcaacaaggt	atcagccatc	480
gaatgctttt	aatcatgaag	tgcccactgc	agaaaatcaa	gttttg		526

<210> 1986  
 <211> 366  
 <212> DNA  
 <213> Pinus radiata

<400> 1986						
atcagactca	catcaaacga	aactggagcc	gtgaagggtt	agttgcggtg	ttaaattcta	60
ggacagcttt	ccgtattaga	aagaggcgcc	ctttacggga	gtcggcacca	aaccagagtg	120
gagagaaata	atgggtaggg	ctccctgctg	cgaaaaggtt	gggctcaaga	agggcccctg	180
gacgccggag	gaagatcaa	agctcctcgc	ttacatacag	gagcacggcc	atggcagctg	240
gagggctctg	cctcagaaa	ctgggttgct	aagatgcggg	aaaagctgca	gattgcgttg	300
gactaactat	ctaagaccag	atatcaagcg	gggaaagtgc	aaccacagg	aagaacagac	360
aattat						366

<210> 1987  
 <211> 476  
 <212> DNA  
 <213> Pinus radiata

<400> 1987						
ccgaactccc	cgctgtgac	aaatgggatt	aaaaaagga	ccctggacac	ctgaagaaga	60
tcaaatactc	atctcctata	tcaacaagca	tggtcatgga	aattggcggtg	cgctgcccac	120
gcaagcagga	cttatgcat	gtggaaagag	ttgtcgctg	cggtggacaa	actatctgag	180
acctgacata	aaacgtggga	acttcagtct	caaggaagag	cagactatta	ttcatctgca	240
tcaaatecct	gggaaccgat	ggtcagctat	tgctcacac	ctccccggaa	gaacagataa	300
tgagataaaa	aatgtatgga	acactcattt	gaaaaaacgc	ctcctgcaaa	ttggggtaga	360
cccagtaacc	cacgcgccta	gaggatacaa	tgtatctaac	tgttacaccg	ctgtgaatat	420
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<210> 1988  
 <211> 151  
 <212> DNA  
 <213> Pinus radiata

<400> 1988						
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ggacaaacta	tctgagaccc	aacataaaac	g			151

<210> 1989  
 <211> 461  
 <212> DNA  
 <213> Pinus radiata

<400> 1989						
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tttttgcttt	ttgaccacag	agcagggttc	acaagcttgt	acaaaggacg	cactgaaaat	180
gaaggatttt	tactgcagct	tatgttaagg	tttattttat	ataaacgatg	ggaactgggg	240
aagaagcaac	gccaaactaag	cctgctgcca	aaccatcttc	ctcctcccag	gagacaccga	300
caacacctgt	ttatccagat	tgggcagctg	ctttccaggc	atattatggg	ccagggtgcta	360
ccccacctcc	tcctgccttt	tttgcttcaa	cagtgggatc	tgaccaact	ccacatccat	420
acatgtgggg	tggacagccg	ttgatgccac	cttatgggac	t		461



<210> 1990  
 <211> 418  
 <212> DNA  
 <213> Pinus radiata

<400> 1990  
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 gacagacaga gacgtgatca tggggcgagg gaagattgaa ataaagaaaa tagatgatgt 120  
 aacgagcaga caggtaactt tctcaaagcg caagatgggg atattcaaga aagcccacga 180  
 gctgtctgtt ttatgcatg cagaggtggc tgttctcatc ttttcaaaca ccggaaggct 240  
 ctacgactat gctagttcaa ggtgtatgga acgaactatt gagagatatg aaaaatgtac 300  
 caaagcaatt aattgcccaa catcagatcc cattgtcgag aataagagcc caattcagga 360  
 aggcattgaa atattgaggc agaaacttcg tgcattacaa agattgcaaa gaaatctg 418

<210> 1991  
 <211> 321  
 <212> DNA  
 <213> Pinus radiata

<400> 1991  
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 ctatctaaag ggctaattgca gatgtggagg gccatgtatg aatgccacca ggtccaaaat 180  
 catattgtcc aacaggtgag gcatttgggc aatctggcaa gcgcagaggc cacaagtagt 240  
 taccatcagc aggcaacat tcaattggaa gctcaggtga ctgcttggtg tgacagtttt 300  
 tgtagaatga taacgagcca g 321

<210> 1992  
 <211> 390  
 <212> DNA  
 <213> Pinus radiata

<400> 1992  
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 ttcagacaac atttgtctga accgcggaac tagctcttga aatattgaaa cccacctaaa 180  
 tcgcagggga ttggtggatg ttagcagtgg tcacagagcg gtagagctag ggaaaatcca 240  
 tatacaacta catacacaga taccattat cagccatggg cgctccgaag caaaaatgga 300  
 catcagaaga agaaggtgct ctgcgagcgg gcgtggagaa gtatggcgcc ggcaagtggc 360  
 agaccattct caaggacca gagttcgct 390

<210> 1993  
 <211> 476  
 <212> DNA  
 <213> Pinus radiata

<400> 1993  
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 aactgtctcg tcaaattcag gagatggaag cgttgtttta ggagtgtcca catcctgatg 180  
 acaaacaaag gcagcggctc agcattgaat tgggccttaa gccgcggcag gtgaaattct 240  
 ggtttcaaaa tcggcgtaact cagatgaagg ctcaacagga tcgctcagac aacgccattc 300  
 tccgtgcaga gaatgaaat ctgcggaacg agaacgtagc actccgagaa gcaattaaaa 360  
 atggtgcttg tccaaactgc ggagggtcta catcgctggg agagatgcct ggattcgacg 420  
 aacaccattt ccgtatagag aatacgcgct taaaggagga gcttgatcga gtgtct 476

<210> 1994  
 <211> 429  
 <212> DNA  
 <213> Pinus radiata

<400> 1994  
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 attcctcaag gcgaagtcta agaaaagggtc tctgggtcacc ggatgaagat atagaactta 180  
 ccacctatat catgagaaaag ggcctcatgg gctgctggaa ctatatcgcc aagcaggctg 240  
 gtctgcagag atgtggaaaag agttgcaggc tgagatggat taactacttg cgacctggtc 300  
 ttaaagcttg tgcaatttca ccccaagaag agcgactgat aatacagtta caatccagtc 360  
 tcggtaacag gtgggtctcaa atcgcggcac atttaccggg acgcacagac aatgaggtca 420  
 agaattact 429

<210> 1995  
 <211> 321  
 <212> DNA  
 <213> Pinus radiata

<400> 1995  
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 gcggtctggag ctgcgttccc aaggcagcag gactgctgctg ctgtgggaag agttgcaggc 180  
 agcgatggat aaactacctg catccagatc tgaagcggag taacttttca gaggaagaag 240  
 atgaactcat cgtcagactc cattcgctcc tgggaaacaa gtggtctctt attgcgggga 300  
 gattgcccggg gaggacagac a 321

<210> 1996  
 <211> 402  
 <212> DNA  
 <213> Pinus radiata

<400> 1996  
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 agctgaggac aaagaaacga tgactccgat gacacctgtc acagccacgg caacggcaac 180  
 ggcaacggca atgccagtgg ctttagtggt cccaacggct gcagacaacg tcaggaagcg 240  
 gagcaacagt agctgcagcg ctaatgacaa tccaggagat gccgaggtcg aatcctgtag 300  
 gcttaagagg ctcaattttt ctgaatcccc atctagttct gaaaatatta ataataataa 360  
 caataatgaa gaagctgtta gtggccattg caattcggcc gc 402

<210> 1997  
 <211> 375  
 <212> DNA  
 <213> Pinus radiata

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 ataaccagct caccaactat atcctgagaa gaggcctcgt cggctgctgg aactatgtgg 180  
 ccaagcaggc tgggtctgcaa agaaccggaa aaagttgtag gctgagatgg attactact 240  
 tacgccctgg ccttaaacgt catccaattt cagccaaga agagcagctc atcatagaat 300  
 tacaatccat tctcggtaac aggtggtctc aaattgcggc acagttgccg ggacgcacgg 360  
 acattgagat caaga 375

<210> 1998

<211> 466  
 <212> DNA  
 <213> Pinus radiata

<400> 1998

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gaagcaacag	ggaatttcca	tcaatggaca	tttgggcat	cataatggat	caggggctgc	120
tgcatttgat	atggaatatg	gccgttgggt	tgaagaacaa	aacagacaag	cccgtgagct	180
cagggcttct	ttacaagcac	acctgacaga	tagcgaactt	tgtgttctgg	tggataatgc	240
tatagctcat	tatgatgaac	tctttcgtat	gaaggggtgct	gcttccaagt	tggatgtttt	300
ccatcttatg	tcaggcatgt	ggaaaactcc	tactgagcgt	tgttttatgt	ggatgggagg	360
ttttcgcca	tcagagcttc	tgaagattct	tactccacaa	attgagcctt	taacagaaca	420
gcaatcattc	gcagtatcta	gcttgaaact	gtcatcacag	caggca		466

<210> 1999  
 <211> 243  
 <212> DNA  
 <213> Pinus radiata

<400> 1999

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agcgtagaaa	tggattgctg	aagaaagctt	acgagctctc	ggttctctgc	gatgcagaag	180
ttggacttat	gattttctcg	ccaggaggaa	agctctatga	attcgccaat	accagcatgg	240
aga						243

<210> 2000  
 <211> 642  
 <212> DNA  
 <213> Pinus radiata

<400> 2000

cgagcgcgaa	agactgaaat	attggtgact	gaaatagagc	aacttcaaag	aaaggaatgg	60
atattaagcg	aggagaatgc	tttcctcggc	aaaaagttcg	tgcatacctca	ttccgtttcg	120
aaaactcctg	gaagtgaatc	gggaagcatc	caaaacagtg	aagtcgagac	gcaactgggt	180
atgagaccgc	catgtacaaa	tgctcatttt	cttattaata	gttctcattg	ataatcaatg	240
tattcgtaac	tgtgttatca	atattattatg	aaaattttat	attaataaaa	ggtaaagctg	300
cttctcatat	cgcacctaat	tgttcaccac	gtccaaaaaa	aggctcttgc	caagtgaact	360
aaatgttttt	tgaaccgaag	tctgtcttcc	aaactcagta	tgtgaagcttg	ctatgaatac	420
atactttaaa	ggttttgtat	tagcattacg	agcggagttt	tcctcattca	tccgatgagc	480
atgaagagtg	aggagtataa	tattgacgca	tgtggagaat	ttaatgttgc	atatactcct	540
acgtgtatat	atgtgatgtt	ttatatatat	atatatatat	atataaatatc	gatttgaatc	600
tataaaaattt	taaattatat	atttagttta	aaaaaaaaaa	aa		642

<210> 2001  
 <211> 485  
 <212> DNA  
 <213> Eucalyptus grandis

<400> 2001

gagagagtct	gcaaaactgcg	cgtccccgct	cgccgatcgc	cgggagaatc	gccgccggcg	60
agatatgggg	aaccagaagc	tgaagtggac	gaaggaggag	gaggaggcgc	tcctcgccgg	120
aatcgccaag	cacggcgccg	gcaagtggaa	gaacatcctc	aaggaccccg	aattcgcccc	180
cgccctcgtc	aatcgctcca	acatcgacct	caaggacaag	tggcgtaact	tgagcgctcg	240
tactttctgga	caaggttcta	gagataaaca	aaggctgtca	aaagtgaaaa	gtctgatggc	300
cgctcctcag	tccagtaccg	tgctctctaaa	tccacaagct	catgctgcat	ctactgatgt	360
tgcattgggtc	aattcttcaa	atagctttca	agatggcaaa	aattattcac	tgtgggtatc	420

tgtgtctcctt	ttccttttca	gtaacggcaa	tcttttttac	ttctatcctt	tgttatcctt	480
tctgt						485

<210> 2002  
 <211> 356  
 <212> DNA  
 <213> Eucalyptus grandis

<400> 2002						
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cccttagttc	cctctggctt	gcccgtccaa	gagaatgaag	aggatcatgg	ctatgcaggc	120
tgacatgtac	attgggtgatc	tttaggaagc	tatcagtttt	gaagtagttt	cggacctaga	180
actggtttat	ttctagtttt	cttcattttt	tttttctttg	gctataatta	ttttttcttt	240
cttagacacg	aagtcacaga	gaattgattg	atgggatgct	aagctatcat	agggtgggat	300
tgcattgttc	tcattgaaga	tactgcta	tgtgtaggca	ctcctgttca	ttagtc	356

<210> 2003  
 <211> 713  
 <212> DNA  
 <213> Eucalyptus grandis

<400> 2003						
tctccatcca	aattcccacc	ttcctccctt	cctccctttc	cccccttctt	tccttctgca	60
ccgaaggaag	ccccgccttc	gcaagccacc	tctcggtaaa	gttcgctcct	ttttgggtcg	120
gcgaatcttg	ggtcgatcga	tggcttcgag	gaaggagggtg	gatcggatca	agggaccgtg	180
gagccccgag	gaggacgagg	ccctccgcct	cctgggtgcag	aagcacggcc	cccggaaactg	240
gtccctcatc	agcaagtcca	tccccgggcg	gtccggcaag	tcgtgccgcc	tcgggtgggtg	300
caaccagctc	tccccgcagg	tggagcaccg	ggccttcacc	cgggaggagg	acgacatcat	360
cgtccgcgcc	cacgcccggg	tgggcaacaa	gtgggccacc	atcgcccgcc	tcctctccgg	420
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cccgtctctc	ccgtctgcgc	aggaaggga	caacaggggcg	ttcgacgctg	ccgcggggta	540
cgacggggac	ttgagcccgc	gggagcggcc	ggcgaagcgg	tcggcctccg	ccgggccttg	600
cctgagcccc	ggcagcccgt	ccggatccgg	catgagcgac	tccagcgtgc	acttcgtgta	660
ccggcccgtc	gcgaagaccg	gccccgtggg	gcccccgacg	gtcgaggcga	cgg	713

<210> 2004  
 <211> 341  
 <212> DNA  
 <213> Eucalyptus grandis

<400> 2004						
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ccagaagtac	aatgtagcag	ctgttgacaa	cagagttttg	aaagctgatg	tcgaaacctt	120
gagagcaaag	gtgaagatgg	ctgaagagac	ggttaaaaga	gtaaccggac	tgaacccaat	180
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tgatacatca	gcggatgctg	cagttcctgt	gcgagatgac	ccaaagcacc	aattctatca	300
aaccaattct	agtaaccccg	catcatctgc	tgacgatatg	a		341

<210> 2005  
 <211> 1403  
 <212> DNA  
 <213> Eucalyptus grandis

<400> 2005						
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gggagaggga	gaggagagga	gagaggagcg	gctgtgcgtt	cgcgtgcagg	gctgcacgag	180



actacacact acgatagaat gcaagaggag ttgaggaaac tgaaggaggt taataacaat 360  
tttcggaagg aaataaggca gatatt 386

<210> 2009  
<211> 123  
<212> DNA  
<213> Eucalyptus grandis

<400> 2009  
gagaaacctt atgggggaag atttggggac cttgaactcg aaggagctcg agcagctcga 60  
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tca 123

<210> 2010  
<211> 581  
<212> DNA  
<213> Eucalyptus grandis

<400> 2010  
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cccgaggagt ccccgagag gaaaatgggg aggggaaaga tgcagatcaa gcggatcgag 180  
aacacgacga atcggcaagt gactttctgc aagcggcgga atggcctcct caagaaggca 240  
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tgctcagatt cctccagtag cggatccgtt tctgaagcta atgttcagtt ttatcagcaa 420  
gaatccgcca agttgcaaca acagattaat aacatgcaga acaataacag gcaactgggtg 480  
ggtgactcaa ttgctgggat gaatatgaag gatatgaaga ctacggagca aaaactagaa 540  
aaagcaatcg ctaaaattcg cgccaaaaag aatgcgattt t 581

<210> 2011  
<211> 538  
<212> DNA  
<213> Eucalyptus grandis

<400> 2011  
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ttcttctgga tgacctatac gaagatccat cattcgtgga tattgtccat ggacgtacct 420  
taaaaggaag gacagtatga atccaatcta gcttactatt ttgtataaga ataaacatct 480  
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<210> 2012  
<211> 341  
<212> DNA  
<213> Eucalyptus grandis

<400> 2012  
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gctccacgaa gcaaacagga ccttgaatca acggttgatg gaaggatacc aagtgaatgc 180  
gctccagtta aatcaacatg ccgaggaagt cggaggatac ggtcatccac cgccgccgcc 240  
actgccgcca cagccacttg ctgagcctca cagcgaagct tttttcaatc ccttggaatg 300

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341

<210> 2013

<211> 934

<212> DNA

<213> Eucalyptus grandis

<400> 2013

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cctccacctc	ctcctctggc	gccgcggcgg	cggcggcggc	ctcggcctcc	ggcgcggggg	180
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gctcgtcccc	gatcgacggg	agcgacgggt	acctgtccga	cgatcccgcg	cccggctccc	360
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gaagggtttt	aattgggtct	cagaaattgg	gtaaaaggaga	ctggcgaggg	atagctcgtg	480
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<210> 2014

<211> 372

<212> DNA

<213> Eucalyptus grandis

<400> 2014

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ggatgcttta	gttcacgagt	cgaagactat	gagcagtgc	aaaaataatt	cacctgaaaa	180
aagtacaaat	tcattctgtc	tgacacctgg	tgatataagc	agttccactt	tggtatatttg	240
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<210> 2015

<211> 411

<212> DNA

<213> Eucalyptus grandis

<400> 2015

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gcgagacgac	gccatcgccg	ccgcgctcgg	ctacaagaac	gagaacaacc	cgacaacaac	180
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tgcttcgacg	ctgggggttg	agaacagcaa	ggagtgcagt	tgaggagag	gagcgagcgg	360
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<210> 2016

<211> 356

<212> DNA

<213> Eucalyptus grandis

<400> 2016  
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<212> DNA  
<213> *Eucalyptus grandis*

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<212> DNA  
<213> *Eucalyptus grandis*

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gaagagatta acata 495

<210> 2019  
<211> 613  
<212> DNA  
<213> *Eucalyptus grandis*

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<210> 2020



<211> 564  
<212> DNA  
<213> Eucalyptus grandis

<400> 2020  
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<211> 410  
<212> DNA  
<213> Eucalyptus grandis

<400> 2021  
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<212> DNA  
<213> Eucalyptus grandis

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<212> DNA  
<213> Eucalyptus grandis

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aaccgtggcc ctggggactt 380



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 <211> 476  
 <212> DNA  
 <213> Eucalyptus grandis

<400> 2028						
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<210> 2029  
 <211> 535  
 <212> DNA  
 <213> Eucalyptus grandis

<400> 2029						
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<210> 2030  
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 <212> DNA  
 <213> Eucalyptus grandis

<400> 2030						
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 <212> DNA  
 <213> Eucalyptus grandis

<400> 2031  
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<210> 2032  
 <211> 495  
 <212> DNA  
 <213> Eucalyptus grandis

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 <212> DNA  
 <213> Eucalyptus grandis

<400> 2033  
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 gggccctccg ggagcttcga ggacttcgga tcggaggatg atctactcag cacctacatg 180  
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<210> 2034  
 <211> 445  
 <212> DNA  
 <213> Eucalyptus grandis

<400> 2034  
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<210> 2035

<211> 349  
<212> DNA  
<213> Eucalyptus grandis

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<210> 2036  
<211> 648  
<212> DNA  
<213> Eucalyptus grandis

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<210> 2037  
<211> 268  
<212> DNA  
<213> Pinus radiata

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 aatgctgcac ctctgaagcc taatacct 268

<210> 2038  
<211> 1055  
<212> DNA  
<213> Pinus radiata

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<210> 2039  
 <211> 167  
 <212> DNA  
 <213> Pinus radiata

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 <211> 357  
 <212> DNA  
 <213> Pinus radiata

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<210> 2041  
 <211> 438  
 <212> DNA  
 <213> Pinus radiata

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<210> 2042  
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 <212> DNA  
 <213> Pinus radiata

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<210> 2047  
 <211> 358  
 <212> DNA  
 <213> Pinus radiata

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<210> 2048  
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 <212> DNA  
 <213> Pinus radiata

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<210> 2049  
 <211> 656  
 <212> DNA  
 <213> Pinus radiata

<400> 2049						
caaacaatca	tcacgagatg	aaattccctt	cagaatggga	tttctgagat	tcgatccttg	60
atctgttgct	gcatctgat	cacattttat	tggttggtta	gggtttaagt	tttctctgct	120
aatggcatcg	atgaaaggaa	aatctccggg	tcacgatgag	cccgatcgga	tcaaggggcc	180
ttggagcccc	gaggaggacg	cagcgtgca	gcatttcgtt	cagaaatacg	ggccacgcaa	240
ctggtcactg	atcagcaaag	cgattcccg	ccgatctggc	aagtcctgca	ggcttcgatg	300
gtgcaaccag	ctgagcccc	aagtcgagca	ccgccccctc	actcctgaag	aggacgccac	360
tatcgtgaga	gcccacgccc	agcacggcaa	caaattgggc	acgattgcgc	gcatgctcag	420
cggcagaacc	gacaacgcta	tcaagaacca	ctggaactcc	actctcagga	ggcgttgcca	480
aggtgggggc	gcctcgtca	tcgacgacga	gatctccagc	ggcgcgacg	ggtttcgaaa	540
acggaacctc	agcgaagacg	ccgatgccag	ccggaaattc	aagaagctca	gcctcgggac	600
gacgacaacg	accacgacca	cggagcctag	cacctcctcg	gcctcggatc	ggagcgc	656

<210> 2050  
 <211> 466  
 <212> DNA  
 <213> Pinus radiata

<400> 2050						
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ttctcgaaac	gcaagaacgg	attgctaaaa	aaggcattcg	agctttctgt	tctctcgcat	120
gctgaagtcg	cccttatcat	tttctcgga	actggcaaga	tcagcgagtt	tgcaagccac	180
aacgacatgg	caacaatact	ggaaaaatat	cgcatataca	cgcaaacaga	aacagatgga	240
aacatggggg	cttcgtcggg	ccaaagcgtg	aagggatggt	ttcctaattt	tctcgagatt	300
gcgggattca	gtgtttgtgg	atgatcccta	ttattgcagt	gtgggttggg	gcacgagggg	360
tgcagttgac	tcgactcata	tgattggaag	gttggtgaat	cacaattgaa	agcgttgcac	420
gagaggatgg	acaatttgaa	aaaacaggaa	cgaaacatgg	ttggtg		466

<210> 2051  
 <211> 390  
 <212> DNA  
 <213> Pinus radiata

<400> 2051						
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cacaattccc	gtacctgtgt	gggaagtggg	gtgatgctct	ttggggttcg	tctgacggat	180
ggaccaatga	gaaagagtgc	tagtatgaat	aatttgtcaa	acttatctca	atatgagcac	240
tcggatccgg	ctgaggttgc	cgctgaaggt	tttgatggtt	acgtctcgga	tgacctcggt	300
cattcatcca	gcaatgcccg	tgagaggaag	aggggagtgc	cctggacaga	ggaagaacac	360
cggatgtttc	ttgtcggcct	tcagagagtc				390

<210> 2052  
 <211> 312  
 <212> DNA  
 <213> Pinus radiata

<400> 2052						
gtttgaaggg	gaacgcggcg	ccatgtcttc	gaggagctgt	tcgttgtgcg	gccttaatgg	60
ccacaattcc	cgtacctgtg	tggaagtggg	tgtgatgctc	tttggggttc	gtctgacgga	120
tggaaccaatg	agaaagagtg	ctagtatgaa	taatttgtca	aacttatctc	aatatgagca	180
ctcggatccg	gctgaggttg	ccgctgaagg	ttttgatggt	tacgtctcgg	atgacctcgt	240
tcattcatcc	agcaatgccc	gtgagaggaa	gaggggagtg	ccctggacag	aggaagaaca	300
ccggatgttt	ct					312

<210> 2053  
 <211> 393  
 <212> DNA  
 <213> Pinus radiata

<400> 2053						
cgaggctcgag	tccagctgag	gaggatcgaa	aacaaaatca	gtcgtcaagt	aactttttct	60
aagagacgga	acggactgat	gaaaaaggcg	gcggagctgt	caatactgtg	cgacgctgaa	120
gtggccttaa	tcgtcttctc	caacaaagac	aaactgtacg	agttcgccag	ttccagtatg	180
accaagattt	tggaagata	tcggaagcgt	tcaaatttaa	tacaagatat	cggtaaagat	240
ccacagaatt	cagacattga	gttgacgcgt	ctaaaagaag	aggttgaccg	cttaciaaaga	300
tccagaaggc	atcttttggg	tgaagacctt	catcaactag	gtgctacgga	tctgcaacac	360
ttagaacaac	agcttgaaga	agcggttacia	aag			393

<210> 2054  
 <211> 210  
 <212> DNA  
 <213> Pinus radiata

<400> 2054						
cacagttctg	gaacctgtta	aagagaaatc	agtcgagggtc	aaactccttc	tgtttgcacg	60
aggatgccca	gcattatgga	gaagcaaaat	agtggtgaag	atagtgatag	caaggggtcag	120

cttgataatg gcaagtatgt ccggttacacc aatgagcagg tggagacttt agaacgtgct	180
tataatgaat gctcaaagcc cagcacaagg	210

<210> 2055  
 <211> 385  
 <212> DNA  
 <213> Pinus radiata

<400> 2055	
aaaattgaga atactacaag cccggcaggtt acattctgta agcgggaagaa tgggttgcgtg	60
aaaaaagctt atgagttatc tctgctgtgc gatgcagaag tggctctcct cattttctcc	120
accagtggga gactctatga atttgcgaaat aagagtgtta gcgcgacaac ggagcgggtac	180
atgagaacct atgcagagaa catgcctcag tctcgagctc tgtatccgga ttgtcaccat	240
tggcaagagg aagtcagaaa acttacacag caacgtgata gtctaaccacaa ttcgatcaga	300
caaataatgg gtgaaggcct tgaatcatta agcatgaagg agctcaagca tattcaagtt	360
caattggaaa aaagtattag ttgtg	385

<210> 2056  
 <211> 545  
 <212> DNA  
 <213> Pinus radiata

<400> 2056	
tgaagacctt gatgattgta tccatccacc ggagaagaag agaaggctga ctgctgacca	60
agtgcagttc ctggaacgaa gctttgagat cgaaaacaag ttggaacctg agcgcaagat	120
acagctagcc aaggagttgg gcctccaacc taggcaagtt gcagtctggt ttcaaaaccg	180
gcggggcaagg tggaaaacaa agcagttgga aagggtattat gatattctga aatcacgcta	240
tgagaatttg agagttgatt atgatagcct gctcaaagaa aaggataaat taagggtcga	300
ggttaccttc ctaacagaca agctacacga cagtgaccat gaagccctca caaaggattc	360
tgagtctgct gacaagaaag tctatcccca gcctgcctcc cactctgact gtgttgggga	420
gcctgaaaga agtactgctg ccaaggatac accaccaggt tgtaaacacg aagatcttct	480
gagctctgga acagatagca gtgggggtcct ggatgaagat agtcctcacc atgttgactg	540
tggtc	545

<210> 2057  
 <211> 385  
 <212> DNA  
 <213> Pinus radiata

<400> 2057	
aaacttgctc acggattccg acccttccgg ctaaagctgc tgcatttctg tgtgtattga	60
agatgggggag atctccctgc tgtgaaaaag ctcatacaaa caaaggggag tggaccaag	120
aagaggacga tcgcctcatc gccacattc gaactcacgg cgaagggttc tggcgctcgc	180
ttcccaaggc cgcagggtcg atgcgctgcg ggaagagctg caggctccga tggataaact	240
acctgcgtcc tgatctgaag cgtggaaact tctcagaaga agaagacgaa ctcgatcatca	300
aactccactc cctactcggc aacaagtggc ctcttattgc aggcagattg cccgggagga	360
cggacaacga gataaagaac tactg	385

<210> 2058  
 <211> 436  
 <212> DNA  
 <213> Pinus radiata

<400> 2058	
aaagaagggt gttccctgga ctgaagaaga gcacaggcag tttttgatgg gccttcgcaa	60
gtacggcaaa ggcgactgga gaagtatttc tagaaacttt gttgtgtcaa ggacaccaac	120
ccaagtggcc agccatgctc aaaagtacta cattcggctt ggttcggata ataaaaacaa	180

gagaagatcc	agcatacatg	atatcaccac	tgttcatggg	acagacagga	tgccttctcc	240
tttactgcac	gtttctaata	ggcagactaa	ttccccctca	acacaggcag	aaatgaatca	300
ttcaccatgt	ctggacatat	ccatctcaga	tttcacgagg	acctctaata	aactctttgg	360
gacctcaaat	agatggtaac	cttctatatt	cacctcacta	tcctctaaat	ctgtataccc	420
agagagggtt	tggggg					436

<210> 2059  
 <211> 624  
 <212> DNA  
 <213> Pinus radiata

<400> 2059						
tttttattca	aatgacagca	cgacttccct	tcctcagatg	tttcccaggc	tgcactcatc	60
agctgcagca	ccacgcgggt	ttggattctc	cctgttcttt	gttctgttgc	gttaaagatt	120
ggttgacagg	cgaatcgccc	aggccgattt	gaattctcct	gaggattgac	aagatgacgc	180
gcaagtgcct	gcactgtggc	aacaacgggc	ataactccag	gacgtgccct	aaccgcggcg	240
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ggaatttgat	gatgatgtcc	aaccctagct	ctcccgtga	ccccctcgag	cggcctctg	360
ccgctgctgc	tgccgcggcg	gcggcggcca	gtggctatct	ctctgatggg	cttgttgaag	420
cctccacttc	ctccaattct	cgcgagcgga	agaaagggtg	gccatggaca	gaggaggaaac	480
atagaatgtt	tttgctaggg	ttgcagaagc	ttggcaaagg	tgattggaga	ggaatagcac	540
ggaattttgt	cataacacga	acacctacac	aggtagccag	ccatgcacag	aaatatttta	600
ttcgacagag	caatatgact	agaa				624

<210> 2060  
 <211> 364  
 <212> DNA  
 <213> Pinus radiata

<400> 2060						
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gaagatgtct	ctaccttcta	atgtttctac	tctcagtgcg	gattccaatt	ctaattccaa	120
ttcgatctcc	tcgtcaggag	acgaactcgc	cgcaaagggt	aggaagccat	acacaatcac	180
aaagcagaga	gagagggtga	gtgaagatga	gcatcttaag	tttctggaag	ccctgaaaat	240
gtatggccga	gcatggaggc	gaatcgaaga	gcacataggc	acgaaaacag	ctgtccagat	300
acgaagccat	gctcagaagt	tcttctccaa	gttggttaagg	ggatcttcaa	ataaagggtg	360
gtct						364

<210> 2061  
 <211> 258  
 <212> DNA  
 <213> Pinus radiata

<400> 2061						
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aggccgatgc	cttgccggacg	attgacactg	gttccgtggg	agtgaagcga	gagcgagaaa	120
gaacctttga	gttgaggcg	gagagggatc	gaacctgcga	cgtgagttcc	aggacaagcg	180
acgaggagga	gataggttcg	acgaggaaaa	agcttcgggt	ttccaaggag	cagtctgcac	240
tcctggagga	aagtttct					258

<210> 2062  
 <211> 347  
 <212> DNA  
 <213> Pinus radiata

<400> 2062						
aacttgaggt	cactcacgtt	gaaagaattg	caacaactgg	aaaagcaatt	aggcagggct	60

ataaaaaaga	tttataataa	aaagatgaaa	ataatttcac	aatgttgcaa	atcattatca	120
gaaaaggtac	gctcttttga	agaggagaat	agtgaacttc	ttaccaagtt	gattcctaga	180
gccgattcct	ccacttctgg	ggctgcggtt	tttgttgata	catccatgcc	aaaatctcac	240
tcagcaaccg	aagcatggcg	acaactcttc	cagcgagtcc	ttgtgacagc	agcgaagatg	300
gcgacaactc	ctccagcgag	gcacagtaat	ccccgaccga	accacta		347

<210> 2063  
 <211> 267  
 <212> DNA  
 <213> Pinus radiata

<400> 2063						
tggcaaggca	acatcgggat	ctgcaaataa	ggccatgtca	caaagtgggg	acagtggcag	60
tgacgggtca	agcgaaggaa	gcgaggaata	taacactcaa	actgagtcac	aagtggcgag	120
aaagagaagt	tttgatcaaa	tgatagtaga	tggagccaat	gctcagagta	ccaatattca	180
atcatataat	tcccaggctg	gagaacccta	tgtgacttcc	ggcgggcatg	caatgggtaa	240
tcccattagt	caagctgttg	ctgcagt				267

<210> 2064  
 <211> 336  
 <212> DNA  
 <213> Pinus radiata

<400> 2064						
tcaacttaaa	tggaaggaac	ggatcttaac	cgaagagaac	ctttttcttc	gtaaaaagtg	60
tggtgatgaa	catgtggatt	gttcggcttt	tagaacacct	ccagcacaac	ttagaagcat	120
ccagaacatt	gatgtggaga	ctcaactggg	tataagacct	ccaactgtac	aacagcacc	180
tgacgtcgat	agtcctcgat	aactgttgca	tatgcaaatt	ttctactttc	atgaaataaa	240
caaacagtac	acctcatttt	gttcgccttt	tgtaaacgta	taattactac	tgcatatgta	300
agctttcttc	tcaaaaaaaaa	aaaaaaaaaa	aaaaac			336

<210> 2065  
 <211> 573  
 <212> DNA  
 <213> Pinus radiata

<400> 2065						
cgcagatcgg	gactgcaaac	agaaccatag	ttctgcaaca	ttcaatggga	cggactcctt	60
gttgtctgaa	agtgggactc	aatcgagggtc	cctggacacc	cgaggaggat	ctttgcctct	120
caaattacat	cgaagctcac	ggagaaggcg	ggtggagaac	acttccaaag	aaagcagggtc	180
tgctccgatg	cgggaagagt	tgcagattgc	gttgatgaa	ttatctccga	cccgatgtga	240
aacacgggca	catattaccc	gaggaggaag	atttaatact	cagggttgc	cgtcttcttg	300
gaaacagggtg	gtctttgatc	gctggacgta	tgcccggcag	aacggataat	gaggtcaaga	360
actattggaa	taccacctc	agcaaaaagc	ttatcagtc	gggtatcgac	ccgcggacgc	420
acaaaccgtt	gtcagaatcc	gaagacatat	gttcgagtcc	cgggaatagc	gaagtgaagc	480
gcaagtctca	acgggaaaat	aacgctgaaa	taccaagaaa	agttgccgat	ggcgcagttg	540
atattcaaga	taaggaagag	gatatcacag	aag			573

<210> 2066  
 <211> 407  
 <212> DNA  
 <213> Pinus radiata

<400> 2066						
atttaactgg	gattgcaagc	tgcttgtgtt	gtttctgtgc	ttcaagcgaa	gggaagggaa	60
gacattccta	gagaagaaaa	aatcaatat	caatggggag	ggggaagatt	gaaataaaaa	120
tgattgaaaa	tacagcaaac	aggcaagtca	cattctctaa	gagaaaagga	ggacttctta	180

agaaagctca	cgagctctcc	gttttatgca	atgcagaaat	tgtctctcatc	gtttttttcca	240
acactggcaa	actccatgat	tgggtcaagct	ccagcatgaa	aaaagttatg	gagaagtacc	300
agaaatcgga	tcaaggacta	ggacttatgg	actaccaaca	acaacagctg	ttgtgtgaaa	360
tgaaacgaat	caccaaagaa	aatgaaagcc	ttcgagctcg	tttaagg		407

<210> 2067  
 <211> 407  
 <212> DNA  
 <213> Pinus radiata

<400> 2067						
atgctttgtg	gccgggttcaa	atattttgagc	tggcttagct	tctctgggttc	agaaatggcg	60
gactaaagta	atagtgtgcc	ccgaggtctg	gtgttcgaat	ctcgttggcg	tgaaaggtca	120
aattttttctc	tcgagtttca	ttgattctga	aaaactggca	tagctatggc	gatgagcaat	180
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tcgctgcaga	ggcttgttca	gaaatacggg	ccgaggaact	ggaccctgat	aagtaaagga	300
atcccggggc	gatccgggaa	atcgtgcagg	ctacgggtggt	gcaatcagct	gagccctcag	360
gtggagcaca	gaccttttac	cccgtccgag	gatgctgcta	ttctgca		407

<210> 2068  
 <211> 353  
 <212> DNA  
 <213> Pinus radiata

<400> 2068						
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ttgggtcatcg	aacgagttcc	tataactcgc	caagaccagg	ttcttcacgg	actactaatt	120
ttgggcttct	acacatcttt	cccgggaagta	gatggggcgg	gcactaggaa	gaacagaaat	180
aaagaggata	gaaaatgaag	tgagcaggaa	tgtgagtttt	agaaagagac	gacgtggatt	240
gctgaagaag	gctgcggagt	tgtcaatact	ttgcatgca	acagtggcg	ttgttgtttt	300
ctctccggcc	gggaaacttt	ctgaatatgc	cagcacttcg	gagcaaatgg	ata	353

<210> 2069  
 <211> 393  
 <212> DNA  
 <213> Pinus radiata

<400> 2069						
attcgaaacc	ctaccaatcg	gcactcatcc	ttctacaaac	gcaagggcgg	tttgcttaaa	60
aaagcatttg	aacttgctgt	tctctgtgat	gctgaagttg	ctctgataat	cttctctgaa	120
accggcagga	tttacgagtt	tgcaagccac	gatgatgtga	ccacagtatt	ggcaaaatac	180
cgaatacaaa	cgaaaactgc	cggaaacgca	atgccttcat	cgcttcaaaa	aacagagttt	240
gatcaattac	aagtcaggat	gttgaggag	aagatagaca	atgttgagaa	aacgaaaaag	300
catatggctg	gtgacaattt	ggagtcactg	acgtggaagg	aattgcaaca	agtcgaaaag	360
aaattaagca	aggctacaaa	aataattgtg	gcc			393

<210> 2070  
 <211> 461  
 <212> DNA  
 <213> Pinus radiata

<400> 2070						
cagcctgttg	ctcctgaaag	catcgctcct	cctcatcagc	cgccgcacaa	ccaaacgcgg	60
aaccaatata	tgcaaggatg	gtgggtttga	tattttaacat	ttatcattat	cagttacttc	120
aatcacaaca	aaagcccaaa	gcggtgtaaa	ttacgaaatt	agaattatat	tatcattaaa	180
aaaaaacctt	attttcatgt	tatagcagta	ggcttgattt	actgctatga	tagcggaggt	240
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cataaatctt	gtatgcta	ctggccgcta	aaagagcgat	ggaaaaatag	ttgtcccatt	360
cacaacacat	gatatgttta	aatccaacgt	gtatgtgtct	gcaaaatatt	attatacact	420
acggttttatc	acatggtagt	cgattcgcca	taaaaaaaaa	a		461

<210> 2071  
 <211> 373  
 <212> DNA  
 <213> Pinus radiata

<400> 2071						
ggattccgac	ccttccggct	aaagctgctt	catttctgtg	tgtattgaag	atggggagat	60
ctccctgctg	tgaaaaagct	catacaaaaca	aaggggctg	gaccaaagaa	gaggacgatc	120
gcctcatcgc	ccacattcga	actcacggcg	aagggtgctg	gcgctcgctt	cccaaggccg	180
cagggctgat	gcgctgctgg	aagagctgca	ggctccgatg	gataaactac	ctgcgtcctg	240
atctgaagcg	tggaacttc	tcagaagaag	aagacgaact	catcatcaaa	ctccactccc	300
tactcgga	caagtggctt	cttattgcag	gcagattgcc	cgggcggacg	gacaacgaga	360
taaagaacta	ctg					373

<210> 2072  
 <211> 506  
 <212> DNA  
 <213> Pinus radiata

<400> 2072						
ggactgcaga	ggaagacaga	aaactgggtga	attttatcac	cctgcatggc	catggatgct	60
ggcgcgaggt	acccaaactt	gctgggtctgc	ttagatgtgg	caagagttgt	agattgcgtt	120
ggacaaatta	cttgccgcca	gatttgaagc	gtggattatt	gtctgaatca	gaggagaagc	180
tcattcattga	tctacatgct	gccataggga	ataggtggtc	acgaatcgct	gcgcaattgc	240
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gccagatggg	aatcgatcct	gtgactcaca	agcctctcac	ccaaatgcaa	atgcagagca	360
cccctgcca	gactctgctg	ctgcaagaaa	atgatacaga	gcagcagcag	caggagcaac	420
ataatgagcc	tgatcctgat	cagaatcaga	gcagcaatgg	cactgtggag	acattgggtct	480
cgagggccag	agaacccac	gaccac				506

<210> 2073  
 <211> 494  
 <212> DNA  
 <213> Pinus radiata

<400> 2073						
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ataagcagaa	actgatttgc	aaagaaagat	acaagaaacg	tgttgatgaa	gaaaggagac	180
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ccaaagtgtg	attgcctaac	tgcagtcatg	caatgtgttt	gaattgctat	cgggaatggc	300
atgcacgatc	agaatcatgc	cctttctgca	gggatagctt	gaaaagagtg	aactcaacag	360
acttgtggat	ttttacaagt	aatgaagaag	ttgttgacat	ggaaacattg	ggcagagaga	420
acttaaaaag	gctatttta	tacattgata	aattgccact	tatagtgcca	gagagcctgt	480
tttatgttta	tgat					494

<210> 2074  
 <211> 1678  
 <212> DNA  
 <213> Eucalyptus grandis

<400> 2074						
ctttttcttc	cctgtcctgt	ttctctgtgc	tcacatcttt	taatatacaca	ccgaggtggt	60

aattctgcc	ggagccgct	ctggtgctg	ctgacatttc	acctagaagt	cacaaaaact	120
ttgtagttac	cattttcgg	aagattttga	ggaaacacgc	gcagagggag	agagagagag	180
tggaagagag	agaatctagt	ctctggatgg	ggaggcattc	ttgctgttac	aagcagaagc	240
tcagaaaagg	cttatggtca	cctgaagagg	atgagaagct	tctgaggcat	atctctcagt	300
atggccatgg	ttgttggagc	tctgtcccaa	agcaagccgg	tctacagaga	tgcggaagaa	360
gctgcagatt	gaggtggatt	aattacttga	ggcccatttt	gaaaagaggg	gcgttctcgc	420
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gatcatttga	ttggtggcga	cttgagaatt	tgagatttgt	tatttggtac	aggtgtggac	1560
tataattttt	tttttttacc	ccttttcttc	tttcaatgta	catagttctg	atacaaaaac	1620
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<210> 2075

<211> 636

<212> DNA

<213> Eucalyptus grandis

<400> 2075

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ccggaggaag	acgaggtcct	cgccagctac	gtgaggagg	aaggcgagg	gcggtggcgg	180
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gcagccatt	tgcaagatac	ttataatgct	tcaacattca	caccgaaagc	aacttaccct	540
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<210> 2076

<211> 862

<212> DNA

<213> Eucalyptus grandis

<400> 2076

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cggagaggca	acatcactac	tgaggagcag	ctcctgatca	tggaactgca	tgccaagtgg	300









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<210> 2086

<211> 1218

<212> DNA

<213> Pinus radiata

<400> 2086

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caaattacat	cgaagctcac	ggagaaggcg	ggtggagaac	acttccaaag	aaagcagggtc	180
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aacacgggca	catattaccc	gaggaggaag	atttaatact	caggttgcat	cgtcttcttg	300
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acaaaccgtt	gtcagaatcc	gaagacatat	gttcgagtc	cgggaatagc	gaagtgaagc	480
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<210> 2087

<211> 473

<212> DNA

<213> Pinus radiata

<400> 2087

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aagtggctct	taattgcagg	gagattgccc	ggacggacgg	acaacgagat	aaagaactac	360
tggaacacac	acatcaaaaag	aaaattgctg	agcaaggggac	tgcaccccca	aaccatcgt	420
ccactcggcc	agccaaacaa	tacccccgtc	actcggcctg	ttctcgagca	cga	473

<210> 2088

<211> 1150

<212> DNA  
<213> Pinus radiata

<400> 2088

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aagaggacga	tcgcctcatc	gccacattc	gaactcacgg	cgaagggtgc	tggcgctcgc	180
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cggacaacga	gataaagaac	tactggaata	ctcacatcaa	gagaaaattg	ctaaacaggg	420
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aaaaaaaaaa						1150

<210> 2089  
<211> 723  
<212> DNA  
<213> Pinus radiata

<400> 2089

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tac						723

<210> 2090  
<211> 768  
<212> DNA  
<213> Pinus radiata

<400> 2090

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ggagaggaaa	caatttatga	aggagtcagt	ggcggcccg	aatgctttcg	ccgccgctca	300
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 cccaactggg actgattgtt ttctcccca gaggaaggt ctatgaattc tccagtacct 180  
 gcatgcagaa aatgttggca cgatacgaaa aatgttcaga aggaagtgc acgagtacat 240  
 caaaagagca agatgtccag tgtttaaaac gagaaagtgc gaatatggaa gaaaggattg 300  
 aaattcttga atccatgcaa agaaagatgt tgggcgagga gctggcatca tgtgcattga 360  
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<210> 2095  
 <211> 584  
 <212> DNA  
 <213> Pinus radiata

<400> 2095  
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 aatagtaacc agagaatagc agcgggtgaa gaagcagagg gatcttgcaa tggggcgggg 180  
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 ccgggaagca cagaattggc accaagaagt taaaaagttg aagggttaagg ttgagctcct 480  
 gcagcgatca caaaggcatt tgttggggga agatctgggt ccgttaaattg ttaaggagct 540  
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<210> 2096  
 <211> 453  
 <212> DNA  
 <213> Pinus radiata

<400> 2096  
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 ggcgttcgag ctttctgtcc tctgtgatgc tgaagtcgct ctcatcattt tctctgaaac 180  
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 gttacaaatt ggcataaaaa ggtagtgat aga 453

<210> 2097  
 <211> 509  
 <212> DNA  
 <213> Pinus radiata

<400> 2097  
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 ggaggtgaaa ctcatcctaaa accctaccag tcgccaagga tgtttctaca accgcaagtg 180  
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<210> 2098  
 <211> 430  
 <212> DNA  
 <213> Pinus radiata

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<210> 2099  
 <211> 513  
 <212> DNA  
 <213> Pinus radiata

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<210> 2100  
 <211> 526  
 <212> DNA  
 <213> Pinus radiata

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 tgcgatgcag atgtagcgtc cattgttttc tcgagccgag gaaagttgta cgagctgggc 360  
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<210> 2101  
 <211> 295  
 <212> DNA  
 <213> Pinus radiata

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<210> 2102  
 <211> 296  
 <212> DNA  
 <213> Pinus radiata

<400> 2102						
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<210> 2103  
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 <212> DNA  
 <213> Pinus radiata

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<210> 2104  
 <211> 1612  
 <212> DNA  
 <213> Eucalyptus grandis

<400> 2104						
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tgtcaacgcc	ggctcggcgg	ccgagggcgg	cggcgccgcg	ccgccgtacg	cggaggaccc	300
gagcaagaag	gtgcggaagc	cgtacaccat	caccaagtcc	agggagagct	ggaccgagca	360
ggagcacgac	aagttccttg	aggcgcttca	cctgtttgat	cgtgattgga	agaagattga	420
agcttttggt	ggatcaaaaa	cagttattca	gattcgtagc	catgcacaaa	agtactttct	480
aaaggttcag	agaatggga	caagtgaaca	tgtaccacca	ccacggccaa	aaaggaaagc	540
tgcccatcca	taccacaga	aagcacctaa	agctccagtt	gtttcccaag	tcaatgggccc	600
atttcaagtt	tcactgtgctt	ttttggaacc	cgggcataatt	gtcagacctg	atggatcagc	660
attgcttggg	aattcccgtg	caagtgtagc	cttgtcttca	tggagtcata	actctgtacc	720
cgcaatgagt	gcatacacag	ggacaaaaga	tgtaggaatt	tctggcccac	cagttccaag	780
taattgttgc	aacagcagta	gtaatgacag	tacaccgagg	tcctggccaa	atgctcaagc	840
aattgaacct	ttggatcaac	agaaacatct	tagagttatg	ccagatttctg	cgcaagtata	900
taggttcatt	ggcagcgttt	ttgacccgga	tgtgtgtggt	catctacaga	gattgaagca	960
gatggaccct	ataaatttgg	aaacggtagt	gctcttgatg	aaaaatctca	gcgcaaattt	1020
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tgagaagtcc	aaatctggcg	gttccctcaa	gttgctcccc	gaaaaatctg	gaagcctaata	1140
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gaaaactgca	ctgtctttga	agatcaagat	tagtagtgga	gaataaagat	gccaaaggatc	1260



gccaaagctgt	ggggatcgca	aaactgggtcc	gtaactgagg	tctggggcttg	tggtttttgt	1320
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catcatcgga	agtttaggct	ttgtataggt	tcttatcgga	ctttgtatat	ggctgcgaga	1440
tacagagatg	tcgtgcgacc	tagaataaag	cttaggcgtc	gggtctgttg	tgtttatgta	1500
tatgtgcgcg	tgtaagatcg	aagaagagga	agtagcgagg	aacgtttgat	caggttgtgg	1560
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<210> 2105  
 <211> 1576  
 <212> DNA  
 <213> Pinus radiata

<400> 2105						
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gagaaggctc	atactaacia	aggggcctgg	actaaacaag	aagacgaccg	ccttatcgct	120
cacattcgag	cccacggcga	agggggctgg	cgttcgcttc	ccaaggccgc	agggctgctg	180
agatgcgga	agagctgcag	actgcgatgg	ataaactacc	tgctgccga	tctgaagcgt	240
ggaagcttca	ccgaagaaga	agacgagctc	atcatcaaac	tccactcctt	cgttggcaac	300
aagtggctct	taattgcagg	gagattgccc	ggacggacgg	acaacgagat	aaagaactac	360
tggaaacacac	acatcaaaaag	aaaattgctg	agcaagggac	tcgaccccca	aacccatcgt	420
ccactcggcc	agccaaacia	taccccgctc	actcggcctg	ttctcgagca	cgaaattccg	480
gcattccaga	accctgcaac	gccggagata	gcagacttgt	tacagcacca	ccgattggaa	540
agctcgccca	tcaaacgggc	agcttcggat	gcggaagagc	atcccgacct	caatctgaat	600
ttgtgtatca	gtttgccgct	taattcggcc	ccggccgtaa	acagagtatc	gagcgtcgat	660
acaacagtag	attcaaatcc	taattctggc	gacgggctgt	gctggcagtt	tctctgacgg	720
aggtcgtttc	aataagaggg	tgtgcattat	cgcagcacga	ccacgcttat	gaccagtgcc	780
aaaggcacaa	ggactcgtgg	tggaaagatg	tttatagtgc	aaagatctcc	gacttgctta	840
tcgtggaatt	gaaataatgt	gttggagggc	gcagagacgg	tgggaaaaag	gttttgtgtg	900
ttgcaggctc	ggagatatgg	tggggaagtg	tatggataat	aggtatttct	ataatctgca	960
attctgggtgc	aattattcac	aacagtttagc	atttatcaag	gaaaaatata	cttcgttttg	1020
tggtctcagt	cgtaggagat	ataccagtac	cagtagcatt	tctgcttgca	gggtaagttg	1080
aagttcatta	cattgcaatg	ccggtgcctt	atcgccctca	tggccgtatt	tttaaagaca	1140
aatcccacgc	tgcttcagcc	tgcaacaaga	tatctttact	ctcattacac	tgatacatat	1200
cactgggtcaa	aacttcccat	cactgtcata	ggctggaaca	gagaaactga	agcctgttca	1260
aaattttcaa	tactttttaga	tctggtaaag	aagccaatgt	gagaactgca	aatttcattg	1320
gggcaaaaact	caggtgtact	gtcaaagcat	gaaagtccag	aatttgatgg	tgggatattc	1380
aacatacggc	agaggtaccc	ccaatgatgt	agaaagtatt	gggctgggtg	cctattacca	1440
cttgcaagtgg	tgtaggaaaa	agtgtagttc	tattgcagga	gtgtaataaa	tgaggtagat	1500
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aaaaaaaaaa	aaaaaa					1576

<210> 2106  
 <211> 210  
 <212> DNA  
 <213> Pinus radiata

<400> 2106						
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cagagtgggc	tgattgtaac	attgatgctt	attcttcagc	taccatgaaa	gcaaatgctt	120
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atactgtgga	acatgaagag	ttcttggaag				210

<210> 2107  
 <211> 27  
 <212> PRT  
 <213> Pinus radiata

<400> 2107  
 Met Lys His His Val Val His Asn Cys Cys Ser Lys Lys Ala Val Lys  
 1 5 10 15  
 Arg Gly Phe Trp Ser Pro Glu Glu Asp Leu Lys  
 20 25

<210> 2108  
 <211> 126  
 <212> PRT  
 <213> Eucalyptus grandis

<400> 2108  
 Gly Ile Ser Arg Asn Phe Val Lys Thr Arg Thr Pro Thr Gln Val Ala  
 1 5 10 15  
 Ser His Ala Gln Lys Tyr Phe Leu Arg Arg Thr Asn Gln Asn Arg Arg  
 20 25 30  
 Arg Arg Arg Ser Ser Leu Phe Asp Ile Thr Thr Asp Ser Tyr Phe Gly  
 35 40 45  
 Val Ser Ser Ser Thr Met Glu Glu Gly His His Gln Ala His Gln Val  
 50 55 60  
 Pro Ser Phe Pro Leu Ser Leu Pro Pro Ala Val Ser Pro Gly Thr Gly  
 65 70 75 80  
 Glu Lys Leu Leu Glu Ser Leu Arg Leu Arg Lys Glu Gly Cys Gln Ser  
 85 90 95  
 Lys Pro Thr Pro Ser Lys Pro Ile Arg Pro Val Pro Ile Leu Pro Ile  
 100 105 110  
 Pro Pro Ser Ser Lys Met Ala Ala Leu Asp Leu Asn Lys Ala  
 115 120 125

<210> 2109  
 <211> 130  
 <212> PRT  
 <213> Eucalyptus grandis

<400> 2109  
 Met Pro Gly Phe Thr Arg Ala Arg Lys Met Ser Met Ser Gly Glu Glu  
 1 5 10 15  
 Glu Gly Asp Leu Arg Arg Gly Pro Trp Thr Arg Glu Glu Asp Asn Leu  
 20 25 30  
 Leu Ile His Ser Ile Thr Cys His Gly Glu Gly Arg Trp Asn Met Leu  
 35 40 45  
 Ala Lys Ser Ala Gly Leu Lys Arg Thr Gly Lys Ser Cys Arg Leu Arg  
 50 55 60  
 Trp Leu Asn Tyr Leu Arg Pro Asp Ile Lys Arg Gly Asn Leu Thr Pro  
 65 70 75 80  
 Gln Glu Gln Leu Met Ile Leu Glu Leu His His Lys Trp Gly Asn Arg  
 85 90 95  
 Trp Ser Lys Ile Ala Gln Tyr Leu Pro Gly Arg Thr Asp Asn Glu Ile  
 100 105 110  
 Lys Asn Tyr Trp Arg Thr Arg Val Gln Lys Gln Ala Arg Gln Leu Asn  
 115 120 125  
 Ile Glu  
 130

<210> 2110  
 <211> 146  
 <212> PRT

<213> Eucalyptus grandis

<400> 2110

Cys	Cys	Asp	Lys	Val	Gly	Leu	Lys	Lys	Gly	Pro	Trp	Thr	Pro	Glu	Glu
1				5					10					15	
Asp	Gln	Lys	Leu	Leu	Ala	Tyr	Ile	Glu	Glu	Asn	Gly	His	Gly	Ser	Trp
			20					25					30		
Arg	Ala	Leu	Pro	Ser	Lys	Ala	Gly	Leu	Gln	Arg	Cys	Gly	Lys	Ser	Cys
		35					40					45			
Arg	Leu	Arg	Trp	Thr	Asn	Tyr	Leu	Arg	Pro	Asp	Ile	Lys	Arg	Gly	Lys
	50					55				60					
Phe	Ser	Leu	Gln	Glu	Glu	Gln	Thr	Ile	Ile	Gln	Leu	His	Ala	Leu	Leu
65					70					75					80
Gly	Asn	Arg	Trp	Ser	Ala	Ile	Ala	Thr	His	Leu	Pro	Lys	Arg	Thr	Asp
				85					90					95	
Asn	Glu	Ile	Lys	Asn	Tyr	Trp	Asn	Thr	His	Leu	Lys	Lys	Arg	Leu	Ala
			100					105					110		
Lys	Met	Gly	Ile	Asp	Pro	Val	Thr	His	Lys	Pro	Lys	Asn	Asp	Ala	Leu
		115					120					125			
Val	Ser	Ser	Asp	Gly	Gln	Ser	Lys	Ser	Ala	Ala	Lys	Leu	Ser	His	Leu
	130					135					140				
Ala	Gln														
145															

<210> 2111

<211> 99

<212> PRT

<213> Eucalyptus grandis

<400> 2111

Arg	Thr	Leu	Pro	Lys	Asn	Ala	Gly	Leu	Arg	Arg	Cys	Gly	Lys	Ser	Cys
1				5					10					15	
Arg	Leu	Arg	Trp	Thr	Asn	Tyr	Leu	Arg	Pro	Asp	Ile	Lys	Arg	Gly	Arg
			20					25					30		
Phe	Thr	Phe	Glu	Glu	Glu	Glu	Thr	Ile	Ile	Gln	Leu	His	Gly	Val	Leu
		35					40					45			
Gly	Asn	Lys	Trp	Ser	Ala	Ile	Ala	Ala	Gln	Leu	Pro	Gly	Arg	Thr	Asp
	50					55					60				
Asn	Glu	Ile	Lys	Asn	Tyr	Trp	Asn	Thr	His	Ile	Lys	Lys	Arg	Leu	Leu
65					70					75					80
Lys	Met	Gly	Ile	Asp	Pro	Val	Thr	His	Ser	Pro	Arg	Leu	Asp	Leu	Leu
				85					90				95		
Asp	Leu	Ser													

<210> 2112

<211> 59

<212> PRT

<213> Eucalyptus grandis

<400> 2112

Met	Gly	Arg	Gly	Arg	Leu	Gln	Leu	Lys	Arg	Ile	Glu	Asn	Lys	Ile	Asn
1				5					10					15	
Arg	Gln	Val	Thr	Phe	Ser	Lys	Arg	Arg	Ala	Gly	Leu	Leu	Lys	Lys	Ala
			20					25					30		
His	Glu	Ile	Ser	Val	Leu	Cys	Asp	Ala	Glu	Val	Ala	Leu	Ile	Ile	Phe
		35					40					45			

Ser Ala Lys Gly Lys Leu Phe Glu Tyr Ser Thr  
50 55

<210> 2113  
<211> 79  
<212> PRT  
<213> Eucalyptus grandis

<400> 2113  
Val Lys His Asp Val Glu Thr Leu Ser Ser Lys Val Lys Met Ala Glu  
1 5 10 15  
Glu Thr Val Lys Arg Val Thr Gly Leu Asn Pro Met Leu His Val Met  
20 25 30  
Ser Asp Met Ser Ser Val Gly Val Pro Pro Phe Asp Gly Ser Pro Ser  
35 40 45  
Asp Thr Ser Ala Asp Ala Ala Val Pro Val Arg Asp Pro Lys His Gln  
50 55 60  
Phe Tyr Gln Thr Asn Ser Ser Asn Pro Ala Ser Ser Ala Asp Asp  
65 70 75

<210> 2114  
<211> 104  
<212> PRT  
<213> Eucalyptus grandis

<400> 2114  
Gln Val Ala Gln Leu Arg Val Glu Asn Ser Thr Leu Leu Lys Arg Leu  
1 5 10 15  
Ser Asp Ile Ser Gln Lys Tyr Asn Val Ala Val Asp Asn Arg Val  
20 25 30  
Leu Glu Ala Asp Val Glu Thr Leu Arg Ala Glu Val Lys Met Ala Glu  
35 40 45  
Glu Thr Val Lys Arg Val Thr Gly Leu Asn Pro Met Leu His Val Met  
50 55 60  
Ser Asp Met Ser Ser Val Gly Val Pro Pro Phe Asp Gly Ser Pro Ser  
65 70 75 80  
Asp Thr Ser Ala Asp Ala Ala Val Pro Val Arg Asp Asp Pro Lys His  
85 90 95  
Gln Phe Tyr Gln Thr Asn Ser Met  
100

<210> 2115  
<211> 71  
<212> PRT  
<213> Eucalyptus grandis

<400> 2115  
Met Gly Arg His Ser Cys Cys Tyr Lys Gln Lys Leu Arg Lys Gly Leu  
1 5 10 15  
Trp Ser Pro Glu Glu Asp Glu Lys Leu Leu Arg Tyr Ile Thr Gln Tyr  
20 25 30  
Gly His Gly Cys Trp Ser Ser Val Pro Lys Leu Ala Gly Leu Gln Arg  
35 40 45  
Cys Gly Lys Ser Cys Arg Leu Arg Trp Ile Asn Tyr Leu Arg Pro Asp  
50 55 60  
Leu Lys Arg Gly Thr Phe Ser  
65 70





<213> Eucalyptus grandis

<400> 2122

Leu	Gln	Tyr	Asp	Trp	His	His	Leu	Ser	Phe	Cys	Val	Ile	Ile	Ser	Val
1				5					10					15	
Leu	Asn	Leu	Gln	Asn	Thr	Ile	Asn	Gly	Ser	Cys	Ser	Met	Glu	Ser	Ile
			20					25					30		
Leu	Glu	Arg	Tyr	Glu	Arg	Tyr	Thr	Tyr	Ala	Glu	Arg	Gln	Gln	Val	Ala
		35					40					45			
Thr	Asp	Ser	Pro	Gln	Val	Gln	Gly	Ser	Trp	Ser	Leu	Glu	Tyr	Pro	Lys
	50					55					60				
Leu	Val	Ala	Arg	Ile	Glu	Val	Leu	Gln	Arg	Asn	Ile	Arg	Asn	Leu	Ser
65					70					75				80	
Gly	Glu	Glu	Leu	Asp	Pro	Leu	Ser	Leu	Arg	Glu	Leu	Gln	Tyr	Leu	Glu
			85						90					95	

<210> 2123

<211> 76

<212> PRT

<213> Eucalyptus grandis

<400> 2123

Phe	Leu	Phe	Arg	Arg	Lys	Gln	Gly	Ala	Val	Glu	Glu	Leu	Lys	Met	Val
1				5				10						15	
Gln	Glu	Val	Arg	Lys	Gly	Pro	Trp	Thr	Glu	Gln	Glu	Asp	Phe	Gln	Leu
			20					25					30		
Val	Cys	Phe	Val	Gly	Leu	Phe	Gly	Asp	Arg	Arg	Trp	Asp	Phe	Ile	Ala
		35					40					45			
Lys	Val	Ser	Gly	Leu	Lys	Val	Ala	Gly	Glu	Asn	Asn	Arg	Tyr	Val	Arg
	50					55					60				
Phe	Lys	Ala	Trp	Gly	Phe	Phe	Gly	Arg	Ser	Tyr	Phe				
65					70					75					

<210> 2124

<211> 55

<212> PRT

<213> Eucalyptus grandis

<400> 2124

Met	Gly	Arg	Ser	Pro	Cys	Cys	Glu	Lys	Ala	His	Thr	Asn	Lys	Gly	Ala
1				5					10					15	
Trp	Thr	Lys	Glu	Glu	Asp	Gln	Arg	Leu	Ile	Asp	Tyr	Ile	Arg	Leu	His
			20					25					30		
Gly	Glu	Gly	Cys	Trp	Arg	Ser	Leu	Pro	Lys	Ser	Ala	Gly	Leu	Leu	Arg
		35					40					45			
Cys	Gly	Lys	Ser	Cys	Arg	Leu									
	50					55									

<210> 2125

<211> 123

<212> PRT

<213> Eucalyptus grandis

<400> 2125

Val	Glu	Gln	Val	Gln	Phe	Leu	Glu	Lys	Ser	Phe	Glu	Val	Glu	Asn	Lys
1				5					10					15	
Leu	Glu	Pro	Asp	Arg	Lys	Ile	Gln	Leu	Ala	Lys	Asp	Leu	Gly	Leu	Gln

			20					25					30						
Pro	Arg	Gln	Val	Ala	Ile	Trp	Phe	Gln	Asn	Arg	Arg	Ala	Arg	Trp	Lys				
		35					40					45							
Thr	Lys	Gln	Leu	Glu	Lys	Asp	Tyr	Glu	Thr	Leu	Gln	Ala	Ser	Phe	Asn				
	50					55					60								
Thr	Leu	Lys	Ser	Asp	Tyr	Asp	Thr	Leu	Ile	Lys	Glu	Arg	Asn	Asp	Leu				
65					70					75					80				
Lys	Ala	Glu	Val	Leu	Asn	Leu	Thr	Asp	Lys	Leu	Leu	His	Lys	Gly	Asn				
			85					90						95					
Glu	Lys	Glu	Ser	Ser	Glu	Ser	Ser	Ser	Lys	Ser	Ser	Gln	Gly	Leu	Phe				
		100						105					110						
Gln	Asn	Pro	Ile	Ala	Asp	Ser	Val	Ser	Glu	Asp									
		115						120											

<210> 2126

<211> 105

<212> PRT

<213> Eucalyptus grandis

<400> 2126

Met	Ala	Arg	Phe	Pro	Arg	Val	Asp	Lys	Ser	Asn	Ser	Lys	Lys	Thr	Val				
1				5				10						15					
Lys	Lys	Gly	Ala	Trp	Ser	Ala	Glu	Glu	Asp	Gln	Lys	Leu	Val	Ala	Tyr				
		20					25					30							
Ile	Lys	Arg	Tyr	Gly	Ile	Trp	Asn	Trp	Thr	His	Met	Ala	Glu	Pro	Ala				
	35				40						45								
Gly	Leu	Ala	Arg	Thr	Gly	Lys	Ser	Cys	Arg	Leu	Arg	Trp	Met	Asn	Tyr				
	50				55					60									
Leu	Arg	Pro	Asn	Ile	Lys	His	Gly	Asn	Ile	Thr	Gln	Glu	Glu	Glu	Glu				
65				70						75					80				
Ile	Ile	Ile	Asn	Leu	His	Arg	Val	Leu	Gly	Asn	Arg	Trp	Ala	Ser	Ile				
			85					90						95					
Ala	Ser	Arg	Leu	Ser	Gly	Arg	Thr	Asp											
		100						105											

<210> 2127

<211> 115

<212> PRT

<213> Eucalyptus grandis

<400> 2127

Met	Ala	Arg	Glu	Lys	Ile	Lys	Ile	Lys	Lys	Ile	Asp	Asn	Val	Thr	Ala				
1				5				10						15					
Arg	Gln	Val	Thr	Phe	Ser	Lys	Arg	Arg	Arg	Gly	Leu	Phe	Lys	Lys	Ala				
		20					25					30							
Gly	Glu	Leu	Ser	Val	Leu	Cys	Asp	Ala	Glu	Val	Ala	Val	Val	Ile	Phe				
	35				40						45								
Ser	Ala	Thr	Gly	Lys	Leu	Phe	Glu	Tyr	Ser	Ser	Ser	Ser	Met	Lys	Asp				
	50				55					60									
Thr	Leu	Glu	Arg	Tyr	Thr	Leu	His	His	Asn	Asn	Leu	Glu	Asn	Met	Asp				
65				70						75					80				
Gln	Pro	Ser	Leu	Glu	Leu	Gln	Leu	Glu	His	Ser	Asn	Asn	Met	Arg	Leu				
			85				90						95						
Ser	Lys	Glu	Val	Ala	Glu	Lys	Ser	His	Arg	Leu	Arg	Gln	Leu	Arg	Gly				
		100					105						110						
Glu	Asp	Leu																	
		115																	



<210> 2128  
 <211> 155  
 <212> PRT  
 <213> Eucalyptus grandis

<400> 2128

Met	Gly	Arg	Lys	Cys	Ser	Arg	Cys	Gly	Asn	Ile	Gly	His	Asn	Ser	Arg
1				5					10					15	
Thr	Cys	Thr	Thr	Phe	Met	Gly	Ala	Ala	Ser	Ala	Cys	Gly	Leu	Lys	Leu
			20					25					30		
Phe	Gly	Val	Gln	Leu	Asp	Leu	Ser	Ser	Ser	Pro	Pro	Ser	Ser	Ser	
		35					40					45			
Ala	Ser	Ser	Gly	Ser	Ala	His	Pro	Tyr	Ser	Leu	Val	Ile	Lys	Lys	Ser
	50					55					60				
Leu	Ser	Met	Asp	Arg	Leu	Ser	Ser	Ser	Ser	Ala	Ser	Ser	Ser	Ser	Pro
65					70					75					80
Ser	Ser	Ser	Leu	Ser	Ser	Pro	Arg	Val	Leu	Ala	Asp	Glu	His	Cys	Asn
				85					90					95	
Lys	Thr	Ser	Leu	Gly	Tyr	Leu	Ser	Asp	Gly	Leu	Ala	Ala	Arg	Ser	Gln
			100					105					110		
Glu	Lys	Arg	Lys	Gly	Val	Pro	Trp	Thr	Glu	Glu	Glu	His	Arg	Thr	Phe
		115					120					125			
Leu	Met	Gly	Leu	Glu	Lys	Met	Gly	Lys	Gly	Asp	Trp	Arg	Gly	Ile	Ser
	130					135					140				
Arg	Asn	Tyr	Val	Thr	Thr	Arg	Thr	Pro	Thr	Gln					
145						150				155					

<210> 2129  
 <211> 145  
 <212> PRT  
 <213> Eucalyptus grandis

<400> 2129

Arg	Gly	Trp	Arg	Gln	Ile	Glu	Glu	His	Val	Gly	Thr	Lys	Thr	Ala	Val
1				5					10					15	
Gln	Ile	Arg	Ser	His	Ala	Gln	Lys	Phe	Phe	Ser	Lys	Val	Ala	Arg	Gly
			20					25					30		
Val	Ser	Gly	Ser	Ser	Glu	Gly	Val	Ile	Lys	Pro	Ile	Glu	Ile	Pro	Pro
		35					40					45			
Pro	Arg	Pro	Lys	Arg	Lys	Pro	Met	His	Pro	Tyr	Pro	Arg	Lys	Ser	Val
	50					55					60				
Asp	Ser	Lys	Glu	Val	Lys	Leu	Ser	Tyr	Gln	Gln	Glu	Arg	Ser	Pro	Ser
65					70					75					80
Pro	Ile	Ser	Ser	Val	Ala	Asp	Glu	Asn	Thr	Gly	Ser	Pro	Thr	Ser	Val
				85					90					95	
Leu	Ser	Ala	His	Gly	Ser	Asp	Met	Leu	Gly	Ser	Ala	Ser	Leu	His	Gln
		100						105					110		
Gln	Asn	Arg	Cys	Ser	Ser	Pro	Thr	Ser	Cys	Thr	Thr	Asp	Val	Pro	Ser
		115					120					125			
Ile	Gly	Leu	Ala	Val	Ile	Glu	Lys	Gln	Pro	Glu	Ile	Phe	Lys	Glu	Glu
	130					135					140				
Asp															
145															

<210> 2130  
 <211> 156

<212> PRT  
 <213> Eucalyptus grandis

<400> 2130  
 Phe Gly His Glu Phe Thr Ser Ser Pro Ala Ser Ser Ser Ser Leu Ser  
 1 5 10 15  
 Ser Ser Arg Ile Ser Ile Gly Glu Asn Ser Asp Lys Ala Ser Leu Gly  
 20 25 30  
 Tyr Leu Ser Asp Gly Leu Leu Gly Arg Ser Gln Glu Lys Lys Gly  
 35 40 45  
 Val Pro Trp Thr Glu Glu Glu His Arg Thr Phe Leu Val Gly Leu Glu  
 50 55 60  
 Lys Leu Gly Lys Gly Asp Trp Arg Gly Ile Ser Arg Ser Tyr Val Thr  
 65 70 75 80  
 Thr Arg Thr Pro Ala Gln Val Ala Ser His Ala Gln Lys Tyr Phe Leu  
 85 90 95  
 Arg Gln Val Ser Phe Asn Lys Lys Lys Arg Arg Ser Ser Leu Phe Asp  
 100 105 110  
 Met Val Asp Val Lys Thr Ala Ala Gly Asp Arg Leu Gly Ser Leu Thr  
 115 120 125  
 Ala Lys Pro Ser Glu Ser Val Pro Asn Cys Lys Met Gly Thr Leu Met  
 130 135 140  
 Ser His Leu Gln Val His Asp Ala Arg Thr Thr Gln  
 145 150 155

<210> 2131  
 <211> 49  
 <212> PRT  
 <213> Eucalyptus grandis

<400> 2131  
 Met Val Gln Glu Val Arg Lys Gly Pro Trp Thr Glu Gln Glu Asp Phe  
 1 5 10 15  
 Gln Leu Val Cys Phe Val Gly Leu Phe Gly Asp Arg Arg Trp Asp Phe  
 20 25 30  
 Ile Ala Lys Val Ser Gly Leu Lys Val Ala Gly Glu Asn Asn Arg Ile  
 35 40 45  
 Glu

<210> 2132  
 <211> 151  
 <212> PRT  
 <213> Eucalyptus grandis

<400> 2132  
 Asp Asp Val Cys Gly Gly Gly Lys Arg Pro Glu Arg Pro Phe Phe Cys  
 1 5 10 15  
 Thr Tyr Asp Gly Glu Glu Asn Gly Asp Asp Asp Tyr Asp Glu Tyr Leu  
 20 25 30  
 His Gln Pro Glu Lys Lys Arg Arg Leu Ser Ile Glu Gln Val Leu Tyr  
 35 40 45  
 Leu Glu Lys Ser Phe Glu Thr Asp Asn Lys Leu Glu Pro Asp Lys Lys  
 50 55 60  
 Val Gln Leu Ala Lys Glu Leu Gly Leu Gln Pro Arg Gln Val Ala Ile  
 65 70 75 80  
 Trp Phe Gln Asn Arg Arg Ala Arg Trp Lys Thr Lys Gln Met Glu Lys

				85					90					95			
Asp	Phe	Asp	Lys	Leu	Gln	Ala	Ser	Phe	Asn	Cys	Leu	Lys	Ser	Asp	Tyr		
			100					105					110				
Glu	Ser	Leu	Leu	Asn	Glu	Lys	Glu	Lys	Leu	Lys	Ala	Glu	Val	Ile	His		
		115					120					125					
Leu	Thr	His	Gln	Leu	Glu	Gln	Arg	Ser	Asn	Gly	Ile	Leu	Asn	His	Ser		
	130					135					140						
Thr	Tyr	Leu	Asn	Asn	Cys	Thr											
145					150												

<210> 2133  
 <211> 133  
 <212> PRT  
 <213> Eucalyptus grandis

Met	Gly	Ser	Arg	Thr	Arg	Val	Gly	Gly	Gly	Gly	Asp	Asp	Gly	Arg	Val		
1				5				10						15			
Val	Asn	Gly	Met	Pro	Ser	Phe	Val	Pro	Gln	Leu	Pro	Thr	Ser	Asn	Ser		
		20						25					30				
Met	Gly	Ser	Glu	Gly	Asn	Ser	Ile	Arg	Ser	Ser	Arg	Ile	Thr	Asp	Phe		
		35				40						45					
Gly	Thr	Leu	Glu	Gln	Ser	Leu	Gly	Tyr	Arg	Ile	Glu	Asp	Ala	Val	Asp		
	50					55					60						
Leu	Ser	Arg	Asn	Pro	Val	Phe	Asn	Gln	Met	Lys	Ser	Ser	Ala	Gln	Ala		
65				70					75					80			
Leu	Gly	Ala	Asp	Val	Gln	Phe	Gly	Ser	Leu	Asn	Lys	Ser	Leu	Ser	Ser		
			85					90					95				
Ser	Asp	Arg	Asn	Leu	Ser	Val	Asn	Ile	Val	Gly	Ser	Gln	Thr	Leu	Ser		
		100					105					110					
Met	His	Arg	Glu	Ser	Gln	Ser	Asn	Leu	Val	Ser	Ile	Pro	Gly	Ala	His		
	115					120						125					
Arg	Glu	Asn	Trp	Gly													
130																	

<210> 2134  
 <211> 150  
 <212> PRT  
 <213> Eucalyptus grandis

Met	Pro	Pro	Pro	Arg	Ala	Ala	Thr	Pro	Asp	Val	Ala	Gly	Asp	Glu	Ser		
1				5				10						15			
Ser	Gly	Ala	Asp	Ala	Gly	Ala	Gly	Glu	Ile	Met	Leu	Phe	Gly	Val	Arg		
		20						25					30				
Val	Val	Val	Asp	Ser	Met	Arg	Lys	Cys	Val	Ser	Leu	Asn	Asn	Leu	Ser		
		35					40					45					
Gln	Tyr	Gln	His	Pro	Gln	Asp	Ala	Asn	Pro	Pro	Asn	Ala	Ser	Gly	Gly		
	50					55					60						
Ser	Gly	Gly	Asn	Lys	Glu	Glu	Ala	Ala	Lys	Gly	Tyr	Ala	Ser	Ala	Asp		
65				70					75					80			
Asp	Ala	Ala	His	Asn	Pro	Gly	Gly	Gly	Arg	Glu	Arg	Lys	Arg	Gly	Val		
			85					90					95				
Pro	Trp	Thr	Glu	Glu	Glu	His	Arg	Leu	Phe	Leu	Leu	Gly	Leu	Gln	Lys		
		100					105					110					
Val	Gly	Lys	Gly	Asp	Trp	Arg	Ala	Ile	Ser	Arg	Asn	Phe	Val	Lys	Thr		
	115					120						125					

Arg Thr Pro Thr Gln Val Ala Ser His Ala Gln Lys Tyr Phe Leu Arg  
 130 135 140  
 Arg Ser Asn Leu Asn Arg  
 145 150

<210> 2135  
 <211> 125  
 <212> PRT  
 <213> Eucalyptus grandis

<400> 2135  
 Glu Asn Val Ala Ser Gly Ser Thr Glu Arg Pro Arg Ile Arg His Gln  
 1 5 10 15  
 His Ser Gln Ser Met Asp Gly Ser Thr Ser Ile Lys Pro Glu Met Leu  
 20 25 30  
 Met Ser Gly Ser Glu Asp Ala Ser Ala Ala Asp Ala Lys Lys Ala Met  
 35 40 45  
 Ser Ala Ala Lys Leu Ala Glu Leu Ala Leu Ile Asp Pro Lys Arg Ala  
 50 55 60  
 Lys Arg Ile Trp Ala Asn Arg Gln Ser Ala Ala Arg Ser Lys Glu Arg  
 65 70 75 80  
 Lys Met Arg Tyr Ile Ala Glu Leu Glu Arg Lys Val Gln Thr Leu Gln  
 85 90 95  
 Thr Glu Ala Thr Thr Leu Ser Ala Gln Leu Thr Leu Leu Gln Arg Asp  
 100 105 110  
 Thr Asn Gly Leu Thr Ala Glu Asn Ser Glu Leu Lys Leu  
 115 120 125

<210> 2136  
 <211> 72  
 <212> PRT  
 <213> Eucalyptus grandis

<400> 2136  
 Met Ala Asp Ser Glu His Ser Ser Ser Asp Asp Thr Tyr Val Asp Ser  
 1 5 10 15  
 Arg Glu Glu Thr Ser Glu Glu Ser Lys Leu Asp Phe Ser Glu Asp Glu  
 20 25 30  
 Glu Thr Leu Val Ile Arg Met Tyr Asn Leu Val Gly Glu Arg Trp Ser  
 35 40 45  
 Leu Ile Ala Gly Arg Ile Pro Gly Arg Thr Ala Glu Glu Ile Glu Lys  
 50 55 60  
 Tyr Trp Asn Ser Arg Tyr Ser Thr  
 65 70

<210> 2137  
 <211> 135  
 <212> PRT  
 <213> Eucalyptus grandis

<400> 2137  
 Met Ala Gly Glu Glu Pro Tyr Ser Ala Asp Thr Asn Ser Asp Thr Phe  
 1 5 10 15  
 Ala Asp Glu Glu Thr Leu Ile Pro Ser Ser Ser Glu Ala Leu Glu Ser  
 20 25 30  
 Ala Trp Val Pro Thr Ser Ser Thr Ala His His Gly Ser Lys Ser Val  
 35 40 45

Val	Asn	Phe	Glu	Asp	Val	Cys	Gly	Gly	Gly	Asp	Thr	Asn	Thr	Ala	Pro
50						55					60				
Arg	Pro	Tyr	Leu	Arg	Gln	Ile	Asp	Leu	Lys	Glu	Glu	Ala	Val	Glu	Glu
65					70					75					80
Asp	Tyr	Gly	Asp	Gly	Asn	Phe	Gln	Pro	Pro	Gly	Lys	Lys	Arg	Arg	Leu
			85					90						95	
Ser	Ala	Asp	Gln	Val	His	Phe	Leu	Glu	Arg	His	Phe	Glu	Val	Glu	Asn
			100					105					110		
Lys	Leu	Glu	Pro	Glu	Arg	Lys	Ile	Gln	Leu	Ala	Lys	Asp	Leu	Gly	Leu
		115					120					125			
Gln	Pro	Arg	Gln	Val	Ala	Ile									
130						135									

<210> 2138

<211> 123

<212> PRT

<213> Eucalyptus grandis

<400> 2138

Asp	Thr	Glu	Asp	Ser	Lys	Lys	Lys	Glu	Arg	His	Ile	Val	Thr	Trp	Ser
1				5					10					15	
Gln	Glu	Glu	Asp	Asp	Ile	Leu	Arg	Glu	Gln	Ile	Gly	Ile	His	Gly	Thr
			20					25					30		
Glu	Asn	Trp	Ser	Ile	Ile	Ala	Ser	Lys	Phe	Lys	Asp	Lys	Thr	Thr	Arg
			35				40					45			
Gln	Cys	Arg	Arg	Arg	Trp	Tyr	Thr	Tyr	Leu	Asn	Ser	Asp	Phe	Lys	Lys
	50				55					60					
Gly	Gly	Trp	Ser	Pro	Glu	Asp	Val	Leu	Leu	Cys	Glu	Ala	Gln	Lys	
65				70				75						80	
Ile	Phe	Gly	Asn	Arg	Trp	Thr	Glu	Ile	Ala	Lys	Val	Val	Ser	Gly	Arg
			85					90					95		
Thr	Asp	Asn	Ala	Val	Lys	Asn	Arg	Phe	Thr	Thr	Leu	Cys	Lys	Lys	Arg
			100					105					110		
Ala	Arg	Tyr	Glu	Ala	Leu	Ala	Lys	Glu	Asn	Thr					
		115					120								

<210> 2139

<211> 126

<212> PRT

<213> Eucalyptus grandis

<400> 2139

Met	Gly	Arg	Gln	Pro	Cys	Cys	Asp	Lys	Leu	Gly	Val	Lys	Lys	Gly	Pro
1				5					10					15	
Trp	Thr	Ala	Glu	Asp	Arg	Lys	Leu	Val	Asn	Phe	Ile	Leu	Thr	His	
			20				25					30			
Gly	Gln	Cys	Cys	Trp	Arg	Ala	Val	Pro	Lys	Leu	Ala	Gly	Leu	Arg	Arg
		35				40						45			
Cys	Gly	Lys	Ser	Cys	Arg	Leu	Arg	Trp	Thr	Asn	Tyr	Leu	Arg	Pro	Asp
	50				55					60					
Leu	Lys	Arg	Gly	Leu	Leu	Asn	Glu	Ala	Glu	Glu	Ser	Leu	Val	Ile	Asp
65				70					75					80	
Leu	His	Ala	Thr	Leu	Gly	Asn	Arg	Trp	Ser	Lys	Ile	Ala	Ala	Arg	Leu
			85					90						95	
Pro	Gly	Arg	Thr	Asp	Asn	Glu	Ile	Lys	Asn	His	Trp	Asn	Thr	His	Ile
			100					105					110		
Lys	Lys	Lys	Leu	Ile	Arg	Met	Gly	Ile	Asp	Pro	Val	Thr	His		

115 120 125

<210> 2140  
 <211> 108  
 <212> PRT  
 <213> Eucalyptus grandis

<400> 2140

Pro	Gly	Ser	Arg	Ser	Ser	Asn	Arg	Arg	Val	Glu	Arg	Lys	Lys	Gly	Asn
1				5					10					15	
Pro	Trp	Thr	Glu	Glu	Glu	His	Arg	Arg	Phe	Leu	Ile	Gly	Leu	Gln	Lys
			20					25					30		
Leu	Gly	Lys	Gly	Asp	Trp	Arg	Gly	Ile	Ala	Arg	Asp	Phe	Val	Thr	Thr
		35					40					45			
Arg	Thr	Pro	Thr	Gln	Val	Ala	Ser	His	Ala	Gln	Lys	Tyr	Tyr	Ile	Arg
	50					55					60				
Gln	Ser	Asn	Ala	Gly	Arg	Arg	Lys	Arg	Arg	Ser	Ser	Leu	Phe	Asp	Met
65					70					75					80
Ala	Pro	Asp	Met	Val	Cys	Leu	Leu	Tyr	Asp	Val	Ala	Ser	Ala	His	Ser
				85					90					95	
Leu	His	Ser	Val	Gln	Ile	Ser	Gly	Ser	Cys	Met	Phe				
			100					105							

<210> 2141  
 <211> 109  
 <212> PRT  
 <213> Eucalyptus grandis

<400> 2141

Met	Arg	Lys	Pro	Cys	Cys	Asp	Lys	Gln	Asp	Thr	Asn	Lys	Gly	Ala	Trp
1				5					10					15	
Ser	Lys	Gln	Glu	Asp	Gln	Lys	Leu	Ile	Asp	Tyr	Ile	Arg	Lys	His	Gly
			20					25					30		
Glu	Gly	Cys	Trp	Arg	Thr	Leu	Pro	Lys	Ala	Ala	Gly	Leu	Leu	Arg	Cys
		35					40					45			
Gly	Lys	Ser	Cys	Arg	Leu	Arg	Trp	Ile	Asn	Tyr	Leu	Arg	Pro	Asp	Leu
	50					55					60				
Lys	Arg	Gly	Asn	Phe	Ala	Glu	Asp	Glu	Glu	Asp	Leu	Ile	Ile	Lys	Leu
65					70					75					80
His	Ala	Leu	Leu	Gly	Asn	Arg	Trp	Ser	Leu	Ile	Ala	Gly	Arg	Leu	Pro
				85					90					95	
Gly	Arg	Thr	Asp	Asn	Glu	Val	Lys	Asn	Tyr	Trp	Asn	Ser			
			100					105							

<210> 2142  
 <211> 65  
 <212> PRT  
 <213> Eucalyptus grandis

<400> 2142

Ser	Pro	Glu	Glu	Asp	Glu	Lys	Leu	Phe	Asn	Tyr	Ile	Thr	Arg	Phe	Gly
1				5					10					15	
Val	Gly	Cys	Trp	Ser	Ser	Val	Pro	Lys	Leu	Ala	Gly	Leu	Gln	Arg	Cys
			20					25					30		
Gly	Lys	Ser	Cys	Arg	Leu	Arg	Trp	Ile	Asn	Tyr	Leu	Arg	Pro	Asp	Leu
		35					40					45			
Lys	Arg	Gly	Met	Phe	Ser	Gln	Glu	Glu	Glu	Asp	Leu	Ile	Val	Ser	Leu

50 55 60

His  
65

<210> 2143  
<211> 121  
<212> PRT  
<213> Pinus radiata

<400> 2143

Ala	Lys	Ser	Tyr	Leu	Gly	Ser	Leu	Thr	Glu	Thr	Ile	Gln	Ser	Leu	Asn
1				5					10					15	
Ala	Glu	Leu	Glu	Arg	Thr	Arg	Ser	Glu	Leu	Val	Glu	Ala	Lys	Lys	Arg
			20					25					30		
Glu	Glu	Glu	Ile	Ile	Ser	Lys	Glu	Ala	Glu	Arg	Val	Glu	Lys	Asn	Lys
		35					40					45			
Arg	Glu	Val	Glu	Asn	Leu	Glu	Leu	Asn	Leu	Leu	Gln	Thr	Thr	Ala	Glu
	50				55						60				
Ala	Gly	Arg	Ala	Lys	Leu	Glu	Leu	Glu	Thr	Ala	Tyr	Glu	Glu	Val	Gln
65				70					75					80	
Ser	Ala	Arg	Leu	Glu	Thr	Ala	Gln	Leu	Arg	Ala	Ala	Leu	Glu	Ala	Thr
			85					90					95		
Glu	Gly	Lys	Phe	Glu	Ala	Met	Leu	Ser	Glu	Thr	Arg	Leu	Glu	Ala	Glu
			100				105						110		
His	Val	Lys	Gly	Ala	Ile	Glu	Lys	Tyr							
		115					120								

<210> 2144  
<211> 71  
<212> PRT  
<213> Pinus radiata

<400> 2144

Glu	Ile	Leu	Val	Thr	Gln	Ile	Glu	Gln	Leu	Gln	Arg	Lys	Glu	Arg	Met
1				5				10					15		
Phe	Ser	Glu	Glu	Asn	Asn	Phe	Leu	Arg	Lys	Arg	Ile	Val	Asp	Pro	His
			20					25				30			
Ser	Val	Leu	Thr	Thr	Pro	Ala	Ser	Gly	Ser	Gly	Ser	Leu	Gln	Arg	Ser
		35					40					45			
Glu	Val	Glu	Thr	Gln	Leu	Val	Met	Arg	Pro	Pro	Ser	Ser	Asn	Ala	Asp
	50				55						60				
Phe	Leu	Phe	Asn	Ser	Ser	His									
65					70										

<210> 2145  
<211> 110  
<212> PRT  
<213> Pinus radiata

<400> 2145

Ser	Leu	Val	Trp	Gly	Ala	Leu	Lys	Met	Gly	Lys	Thr	Lys	Met	Glu	Ile
1				5					10					15	
Lys	Arg	Ile	Gln	Asn	Pro	Ser	Arg	Arg	Gln	Val	Thr	Phe	Ser	Lys	Arg
			20					25				30			
Lys	Asn	Gly	Leu	Leu	Lys	Lys	Ala	Phe	Glu	Leu	Ser	Val	Leu	Cys	Asp
		35				40					45				
Ala	Glu	Val	Ala	Leu	Ile	Ile	Phe	Ser	Glu	Thr	Gly	Lys	Ile	Cys	Glu

50		55		60													
Phe	Ala	Ser	His	Asp	Asp	Met	Ala	Thr	Ile	Leu	Glu	Lys	Tyr	Arg	Ile		
65					70					75					80		
Tyr	Thr	Glu	Thr	His	Gly	Asn	Met	Glu	Ser	Ser	Ser	Val	Gln	Ser	Val		
				85					90					95			
Lys	Ile	Gly	Glu	Ser	Gln	Leu	Lys	Ala	Leu	Arg	Glu	Lys	Met				
			100					105					110				

<210> 2146  
 <211> 50  
 <212> PRT  
 <213> Pinus radiata

<400> 2146																	
Leu	Arg	Gly	Ala	Asn	Gly	Cys	Thr	Ile	Pro	Ser	Ile	Gly	Leu	Thr	Ser		
1				5					10					15			
Ile	Glu	Arg	Val	Glu	Val	Gln	Thr	Gln	Leu	Val	Met	Arg	Pro	Pro	His		
			20				25					30					
Ala	Thr	Glu	Met	Asp	Asp	Asn	Phe	Met	Asp	Val	Asp	Asn	Val	Pro	Leu		
		35					40					45					
Ser	Gly																
50																	

<210> 2147  
 <211> 168  
 <212> PRT  
 <213> Pinus radiata

<400> 2147																	
Glu	Asp	Gly	Ser	Leu	Val	Ile	Cys	Glu	Arg	Ser	Leu	Ser	Ala	Ala	Gln		
1			5					10					15				
Gly	Met	Pro	Met	Val	Ser	Gln	Ser	Gln	Ser	Phe	Val	His	Gly	Glu	Leu		
			20				25					30					
Leu	Ser	Ser	Gly	Tyr	Leu	Ile	Arg	Pro	Cys	Glu	Gly	Arg	Gly	Ala	Leu		
		35				40					45						
Val	Ile	Met	Val	Asp	His	Arg	Asn	Leu	Glu	Ala	Ser	Ser	Val	Pro	Glu		
	50				55				60								
Ala	Leu	Arg	Pro	Leu	Tyr	Glu	Ser	Ser	Thr	Phe	Phe	Ala	Gln	Lys	Met		
65				70					75					80			
Thr	Val	Glu	Ala	Ser	Tyr	His	Leu	Gln	Gly	Lys	Val	Gln	Pro	Glu	Met		
			85					90					95				
Ile	Ser	Leu	Ser	Lys	Lys	Leu	Gln	Gln	Pro	Cys	Asn	Val	Arg	Ser	Tyr		
		100					105					110					
Ser	Gln	Arg	Leu	Cys	Arg	Gly	Phe	Asn	Glu	Ala	Val	Asn	Thr	Leu	Pro		
	115					120					125						
Asp	Asp	Gly	Trp	Met	Ser	Leu	Ser	Lys	Asp	Gly	Leu	Gly	Asp	Val	Thr		
	130				135						140						
Ile	Cys	Glu	Ser	Phe	Val	Lys	Leu	Pro	Glu	Pro	Asn	Ala	Ser	Gln	Ile		
145				150					155						160		
Ala	Tyr	Val	Asn	Ser	Met	Gly	Thr										
				165													

<210> 2148  
 <211> 120  
 <212> PRT  
 <213> Pinus radiata



<400> 2148  
 Glu Asn Glu Ser Leu Arg Ala Arg Leu Arg His Met Asn Gly Asp Asp  
 1 5 10 15  
 Ile Asn Ser Leu Lys Leu Pro Glu Leu Phe His Leu Glu Gln Gln Leu  
 20 25 30  
 Glu Thr Ala Ala Thr Gln Val Arg Arg Arg Lys Asp Gln Val Leu Asp  
 35 40 45  
 Asn Glu Lys Ile Lys Arg Arg Asn Lys Met Arg Arg Lys Glu Asp Glu  
 50 55 60  
 Asn Ile Ile Leu His Glu Met Leu Asp Gln His His Gly Gln Met Glu  
 65 70 75 80  
 Glu Asp Asn Ala Gln Ile Asn Phe Leu Phe Cys Gln Pro Leu Asn Arg  
 85 90 95  
 Ser Asp Thr Thr Phe Pro Ala Ser Leu Arg Leu Gln Pro Asn Gln  
 100 105 110  
 Pro Asn Leu Gln Asp Ile Gly Tyr  
 115 120

<210> 2149  
 <211> 165  
 <212> PRT  
 <213> Pinus radiata

<400> 2149  
 Ser Pro Gln Val Glu His Arg Pro Phe Ser Pro His Glu Asp Ala Thr  
 1 5 10 15  
 Ile Ile Gln Ala His Ala Arg His Gly Asn Lys Trp Ala Thr Ile Ala  
 20 25 30  
 Arg Leu Leu Pro Gly Arg Thr Asp Asn Ala Ile Lys Asn His Trp Asn  
 35 40 45  
 Ser Thr Leu Arg Arg Arg Tyr His Gly Glu Lys Asp Gln Ser Asn Gly  
 50 55 60  
 Leu Ala Val Asn Leu Glu Ser Ala Ala Glu Asp Lys Glu Thr Met Thr  
 65 70 75 80  
 Pro Met Thr Pro Val Thr Ala Thr Ala Thr Ala Thr Ala Met  
 85 90 95  
 Pro Val Ala Leu Val Phe Pro Thr Ala Ala Asp Asn Val Arg Lys Arg  
 100 105 110  
 Ser Asn Ser Ser Cys Ser Ala Asn Asp Asn Pro Gly Asp Ala Glu Val  
 115 120 125  
 Glu Ser Cys Arg Leu Lys Arg Leu Asn Phe Ser Glu Ser Pro Ser Ser  
 130 135 140  
 Ser Glu Asn Ile Asn Asn Asn Asn Asn Glu Glu Ala Val Ser Gly  
 145 150 155 160  
 His Cys Asn Ser Ala  
 165

<210> 2150  
 <211> 68  
 <212> PRT  
 <213> Pinus radiata

<400> 2150  
 Met Gly Arg Gly Pro Val Gln Leu Arg Arg Ile Glu Asn Lys Ile Asn  
 1 5 10 15  
 Arg Gln Val Thr Phe Ser Lys Arg Arg Asn Gly Leu Ile Lys Lys Ala  
 20 25 30

Ser Glu Leu Ser Ile Leu Cys Asp Ala Glu Val Ala Leu Ile Val Phe  
                   35                  40                  45  
 Ser Asn Lys Gly Lys Leu Tyr Glu Phe Ser Ser Ser Ser Met Thr Lys  
           50                  55                  60  
 Ile Leu Glu Arg  
 65

<210> 2151  
 <211> 152  
 <212> PRT  
 <213> Pinus radiata

<400> 2151  
 Gln Ala Gly Leu Gln Arg Cys Gly Lys Ser Cys Arg Leu Arg Trp Ile  
   1                  5                  10                  15  
 Asn Tyr Leu Arg Pro Asp Leu Lys Arg Gly Thr Phe Ser Pro Gln Glu  
           20                  25                  30  
 Glu Asn Leu Ile Val Glu Leu His Ser Val Leu Gly Asn Arg Trp Ser  
           35                  40                  45  
 Gln Ile Ala Thr His Leu Pro Gly Arg Thr Asp Asn Glu Ile Lys Asn  
           50                  55                  60  
 Leu Trp Asn Ser Cys Ile Lys Lys Lys Leu Arg Gln Arg Gly Ile Asp  
   65                  70                  75                  80  
 Pro Asn Thr His Arg Pro Leu Ser Glu Val Asn Ala Glu Ala Gly Asp  
                   85                  90                  95  
 Ser Lys Asn Asp Asn Ser Asn Lys Glu Val Glu Thr Gln Ala Ala Met  
           100                  105                  110  
 Asp Glu Ser His Val Ser Ala Gly Asn Glu Phe Lys His Leu Asn Ala  
           115                  120                  125  
 Ile Pro Arg Ala Asp Thr Ala Asn Pro Lys Phe Phe His Val Pro Val  
           130                  135                  140  
 Glu Asp Asn Thr Leu Ile Ala Ser  
   145                  150

<210> 2152  
 <211> 89  
 <212> PRT  
 <213> Pinus radiata

<400> 2152  
 Met Arg Cys Thr Arg Trp Gln Gly Leu Pro Phe Ser Ser Lys Pro Lys  
   1                  5                  10                  15  
 Val Lys Lys Gly Leu Trp Ser Pro Glu Asp Glu Lys Leu Ile Asn  
           20                  25                  30  
 Tyr Met Met Lys Asn Gly Leu Leu Gly Cys Ser Trp Ser Tyr Val Ala  
           35                  40                  45  
 Lys Gln Ile Gly Leu Gln Arg Cys Gly Lys Ser Cys Arg Leu Arg Trp  
           50                  55                  60  
 Thr Asn Tyr Leu Arg Pro Gly Leu Lys Arg Gly Ala Ile Ser Pro Glu  
   65                  70                  75                  80  
 Glu Glu Gln Leu Ile Ile His Leu Gln  
                   85

<210> 2153  
 <211> 94  
 <212> PRT  
 <213> Pinus radiata

<400> 2153  
Met Gly Arg Ala Pro Cys Cys Asp Lys Ala Asn Val Lys Lys Gly Pro  
1 5 10 15  
Trp Ser Pro Glu Glu Asp Thr Lys Leu Lys Ala Phe Ile Glu Gln His  
20 25 30  
Gly Thr Gly Gly Asn Trp Ile Ala Leu Pro Gln Lys Ala Gly Leu Lys  
35 40 45  
Arg Cys Gly Lys Ser Cys Arg Leu Arg Trp Leu Asn Tyr Leu Arg Pro  
50 55 60  
Asp Ile Arg His Gly Gly Phe Ser Glu Asp Glu Asp Asn Ile Ile Cys  
65 70 75 80  
Ser Leu Tyr Ala Ser Ile Gly Ser Met Val Ser Ile Ile Ala  
85 90

<210> 2154  
<211> 217  
<212> PRT  
<213> Pinus radiata

<400> 2154  
Met Val Arg Gly Lys Thr Gln Met Lys Arg Ile Glu Asn Asp Thr Ser  
1 5 10 15  
Arg Gln Val Thr Phe Ser Lys Arg Arg Asn Gly Leu Leu Lys Lys Ala  
20 25 30  
Tyr Glu Leu Ser Val Leu Cys Asp Ala Glu Val Gly Leu Ile Ile Phe  
35 40 45  
Ser Pro Arg Gly Lys Leu Tyr Glu Phe Ala Ser Pro Ser Met Glu Glu  
50 55 60  
Ile Leu Glu Lys Tyr Lys Lys Arg Ser Lys Glu Asn Gly Met Ala Gln  
65 70 75 80  
Thr Thr Lys Glu Gln Asp Thr Gln Tyr Ser Lys His Ser Lys Gln Lys  
85 90 95  
Leu Ala Asn Met Glu Glu Gln Ile Arg Ile Leu Glu Ser Thr Gln Arg  
100 105 110  
Lys Met Leu Gly Glu Gly Leu Glu Ser Cys Ser Met Ala Glu Leu Asn  
115 120 125  
Lys Leu Glu Ser Gln Ala Glu Arg Gly Leu Ser His Ile Arg Ala Arg  
130 135 140  
Lys Thr Glu Ile Leu Val Asp Gln Ile Glu Cys Leu Lys Arg Lys Glu  
145 150 155 160  
Arg Leu Leu Ser Glu Glu Asn Ala Leu Leu Ser Arg Lys Trp Val Asp  
165 170 175  
Arg Gln Ser Val Asp Gly Ser Gly Ser Thr Ser Ser Ser Ile Gly Leu  
180 185 190  
Gly Ser Ile Glu Gln Ile Glu Val Glu Thr Gln Leu Val Ile Arg Pro  
195 200 205  
Pro Asn Ala Gln Asp His Cys Ser Val  
210 215

<210> 2155  
<211> 113  
<212> PRT  
<213> Pinus radiata

<400> 2155  
Leu Gly Trp Gly Arg Gln Pro Ala Ala Leu Arg Thr Phe Ser Gln Arg

1				5					10					15			
Leu	Cys	Lys	Gly	Phe	Asn	Glu	Ala	Val	Asn	Gly	Phe	Thr	Asp	Asp	Gly		
			20					25					30				
Trp	Ser	Leu	Met	Gly	Asn	Asp	Gly	Met	Glu	Asp	Val	Thr	Ile	Leu	Val		
	35						40					45					
Asn	Ser	Ser	Pro	Ser	Lys	Leu	Phe	Gly	Gln	Gln	Phe	Ala	Ser	Ser	Asp		
	50					55					60						
Gly	Leu	Pro	Ala	Leu	Gly	Gly	Gly	Ile	Leu	Cys	Ala	Lys	Ala	Ser	Met		
65					70					75					80		
Leu	Leu	Gln	Asn	Val	Pro	Pro	Ala	Leu	Leu	Val	Arg	Phe	Leu	Arg	Glu		
			85					90						95			
His	Arg	Ser	Glu	Trp	Ala	Asp	Ser	Asn	Ile	Asp	Ala	Tyr	Ser	Ala	Ala		
			100					105					110				
Ser																	

<210> 2156  
 <211> 107  
 <212> PRT  
 <213> Pinus radiata

Met	Gly	Arg	Ser	Pro	Cys	Cys	Glu	Lys	Ala	His	Thr	Asn	Lys	Gly	Ala		
1				5				10					15				
Trp	Thr	Lys	Glu	Glu	Asp	Asp	Arg	Leu	Ile	Ala	His	Ile	Arg	Thr	His		
			20					25					30				
Gly	Glu	Gly	Cys	Trp	Arg	Ser	Leu	Pro	Lys	Ala	Ala	Gly	Leu	Met	Arg		
	35						40					45					
Cys	Gly	Lys	Ser	Cys	Arg	Leu	Arg	Trp	Ile	Asn	Tyr	Leu	Arg	Pro	Asp		
	50					55					60						
Leu	Lys	Arg	Gly	Asn	Phe	Ser	Glu	Glu	Glu	Asp	Glu	Leu	Ile	Ile	Lys		
65				70					75						80		
Leu	His	Ser	Leu	Leu	Gly	Asn	Lys	Trp	Ser	Leu	Ile	Ala	Gly	Arg	Leu		
			85					90						95			
Pro	Gly	Arg	Thr	Asp	Asn	Glu	Ile	Lys	Asn	Tyr							
			100					105									

<210> 2157  
 <211> 124  
 <212> PRT  
 <213> Pinus radiata

Leu	Trp	Leu	Arg	Phe	Ser	Gly	Met	Asp	Arg	Ser	Asn	Ser	Ala	Thr	Gly		
1				5				10					15				
Glu	Glu	Asp	Val	Leu	Ser	Arg	Cys	Arg	Glu	Arg	Lys	Arg	Phe	Met	Lys		
			20					25					30				
Leu	Ala	Ile	Glu	Asn	Arg	Tyr	Lys	Leu	Ala	Thr	Ala	His	Val	Ala	Tyr		
	35						40					45					
Met	Asp	Ser	Leu	Arg	Arg	Met	Gly	Thr	Gly	Leu	Arg	Leu	Phe	Ala	Glu		
	50					55					60						
Gly	Glu	Thr	Met	Ser	Glu	Ser	Ser	Tyr	Ser	Thr	Ser	Pro	Ile	Gly	Thr		
65				70					75					80			
Ser	Glu	Leu	Ala	Val	Val	Leu	Pro	Glu	Lys	Ser	Val	Ser	Pro	Ser	Pro		
			85					90						95			
Phe	Pro	Ser	Ser	Ser	Pro	Ser	Leu	Ser	Gln	Pro	Gln	Ser	Pro	Arg	Ser		
			100					105					110				

Glu Arg Ala Glu Ser Arg Ser Pro Leu Asp Ser Phe  
 115 120

<210> 2158  
 <211> 110  
 <212> PRT  
 <213> Pinus radiata

<400> 2158  
 Asp Gly Leu Val Gln Asn Ser Arg Glu Arg Lys Lys Gly Val Pro Trp  
 1 5 10 15  
 Thr Glu Glu Glu His Lys Met Phe Leu Leu Gly Leu His Lys Leu Gly  
 20 25 30  
 Lys Gly Asp Trp Arg Gly Ile Ser Arg Asn Phe Val Thr Ser Arg Thr  
 35 40 45  
 Pro Thr Gln Val Ala Ser His Ala Gln Lys Tyr Phe Leu Arg Gln Ser  
 50 55 60  
 Asn Leu Asn Lys Arg Lys Arg Arg Ser Ser Leu Phe Asp Ile Ser Thr  
 65 70 75 80  
 Asp Ser Met Glu Asp Cys Tyr Gln Gly Ile Pro Glu Leu Ser Pro Val  
 85 90 95  
 Met His Asp Leu Ser Leu Gly Gln Asn Ser Ser Leu Thr Ser  
 100 105 110

<210> 2159  
 <211> 175  
 <212> PRT  
 <213> Pinus radiata

<400> 2159  
 Ser Ser Pro Val Ser Lys Pro Lys Leu Arg Lys Gly Leu Trp Ser Pro  
 1 5 10 15  
 Glu Glu Asp Asp Lys Leu Ile Asn Tyr Met Met Lys Asn Gly Gln Gly  
 20 25 30  
 Cys Trp Ser Asp Val Ala Lys Gln Ala Gly Leu Gln Arg Cys Gly Lys  
 35 40 45  
 Ser Cys Arg Leu Arg Trp Ile Asn Tyr Leu Arg Pro Asp Leu Lys Arg  
 50 55 60  
 Gly Ala Phe Ser Pro Gln Glu Glu Gln Leu Ile Ile His Leu His Ser  
 65 70 75 80  
 Ile Leu Gly Asn Arg Trp Ser Gln Ile Ala Ala Arg Leu Pro Gly Arg  
 85 90 95  
 Thr Asp Asn Glu Ile Lys Asn Phe Trp Asn Ser Cys Ile Lys Lys Lys  
 100 105 110  
 Leu Lys His Leu Ser Ala Ser Thr Asn Asn Ser Lys Ser Ile Ser Ala  
 115 120 125  
 Pro Asn Arg Thr Ser Thr Met Asn Ser Ser Ile Thr Pro Phe Ser Glu  
 130 135 140  
 Ser Ser Ala Glu Pro Leu Glu Val Met Ala Thr Arg Tyr Gln Pro Ser  
 145 150 155 160  
 Asn Ala Phe Asn His Glu Val Pro Thr Ala Glu Asn Gln Val Leu  
 165 170 175

<210> 2160  
 <211> 78  
 <212> PRT  
 <213> Pinus radiata

<400> 2160  
 Met Gly Arg Ala Pro Cys Cys Glu Lys Val Gly Leu Lys Lys Gly Pro  
 1 5 10 15  
 Trp Thr Pro Glu Glu Asp Gln Lys Leu Leu Ala Tyr Ile Gln Glu His  
 20 25 30  
 Gly His Gly Ser Trp Arg Ala Leu Pro Gln Lys Ala Gly Leu Leu Arg  
 35 40 45  
 Cys Gly Lys Ser Cys Arg Leu Arg Trp Thr Asn Tyr Leu Arg Pro Asp  
 50 55 60  
 Ile Lys Arg Gly Lys Phe Asn Pro Gln Glu Glu Gln Thr Ile  
 65 70 75

<210> 2161  
 <211> 159  
 <212> PRT  
 <213> Pinus radiata

<400> 2161  
 Arg Thr Pro Arg Cys Asp Gln Met Gly Leu Lys Lys Gly Pro Trp Thr  
 1 5 10 15  
 Pro Glu Glu Asp Gln Ile Leu Ile Ser Tyr Ile Asn Lys His Gly His  
 20 25 30  
 Gly Asn Trp Arg Ala Leu Pro Lys Gln Ala Gly Leu Met Arg Cys Gly  
 35 40 45  
 Lys Ser Cys Arg Leu Arg Trp Thr Asn Tyr Leu Arg Pro Asp Ile Lys  
 50 55 60  
 Arg Gly Asn Phe Ser Leu Lys Glu Glu Gln Thr Ile Ile His Leu His  
 65 70 75 80  
 Gln Ile Leu Gly Asn Arg Trp Ser Ala Ile Ala Ser His Leu Pro Gly  
 85 90 95  
 Arg Thr Asp Asn Glu Ile Lys Asn Val Trp Asn Thr His Leu Lys Lys  
 100 105 110  
 Arg Leu Leu Gln Ile Gly Val Asp Pro Val Thr His Ala Pro Arg Gly  
 115 120 125  
 Tyr Asn Val Ser Asn Cys Tyr Thr Ala Val Asn Ile Arg Asp His His  
 130 135 140  
 Gly Glu Gln Ala Asp His Gln Leu Gln Ser His Val Cys Val Ser  
 145 150 155

<210> 2162  
 <211> 49  
 <212> PRT  
 <213> Pinus radiata

<400> 2162  
 Thr Pro Glu Glu Asp Arg Ile Leu Ile Ser Tyr Ile Lys Arg Asn Gly  
 1 5 10 15  
 His Gly Lys Trp Leu Ala Leu Pro Lys Gln Ala Gly Leu Ser Arg Cys  
 20 25 30  
 Gly Lys Ser Cys Arg Leu Arg Trp Thr Asn Tyr Leu Arg Pro Asn Ile  
 35 40 45  
 Lys

<210> 2163  
 <211> 78

<212> PRT  
 <213> Pinus radiata

<400> 2163  
 Met Gly Thr Gly Glu Glu Ala Thr Pro Thr Lys Pro Ala Ala Lys Pro  
 1 5 10 15  
 Ser Ser Ser Ser Gln Glu Thr Pro Thr Thr Pro Val Tyr Pro Asp Trp  
 20 25 30  
 Ala Ala Ala Phe Gln Ala Tyr Tyr Gly Pro Gly Ala Thr Pro Pro Pro  
 35 40 45  
 Pro Ala Phe Phe Ala Ser Thr Val Gly Ser Ala Pro Thr Pro His Pro  
 50 55 60  
 Tyr Met Trp Gly Gly Gln Pro Leu Met Pro Pro Tyr Gly Thr  
 65 70 75

<210> 2164  
 <211> 113  
 <212> PRT  
 <213> Pinus radiata

<400> 2164  
 Met Gly Arg Gly Lys Ile Glu Ile Lys Lys Ile Asp Asp Val Thr Ser  
 1 5 10 15  
 Arg Gln Val Thr Phe Ser Lys Arg Lys Met Gly Ile Phe Lys Lys Ala  
 20 25 30  
 His Glu Leu Ser Val Leu Cys Asp Ala Glu Val Ala Val Leu Ile Phe  
 35 40 45  
 Ser Asn Thr Gly Arg Leu Tyr Asp Tyr Ala Ser Ser Arg Cys Met Glu  
 50 55 60  
 Arg Thr Ile Glu Arg Tyr Glu Lys Cys Thr Lys Ala Ile Asn Cys Pro  
 65 70 75 80  
 Thr Ser Asp Pro Ile Val Glu Asn Lys Ser Pro Ile Gln Glu Gly Ile  
 85 90 95  
 Glu Ile Leu Arg Gln Lys Leu Arg Ala Leu Gln Arg Leu Gln Arg Asn  
 100 105 110  
 Leu

<210> 2165  
 <211> 107  
 <212> PRT  
 <213> Pinus radiata

<400> 2165  
 Thr Lys Ala Ala Ile Lys Arg Leu Gln Ser Gln Ile Met Val Ala Phe  
 1 5 10 15  
 Gln Ala Val Asp Thr Thr Ser Ala Ala Ile Leu Lys Leu Arg Glu Asp  
 20 25 30  
 Glu Leu Tyr Pro Gln Leu Val Glu Leu Ser Lys Gly Leu Met Gln Met  
 35 40 45  
 Trp Arg Ala Met Tyr Glu Cys His Gln Val Gln Asn His Ile Val Gln  
 50 55 60  
 Gln Val Arg His Leu Gly Asn Leu Ala Ser Ala Glu Ala Thr Ser Ser  
 65 70 75 80  
 Tyr His Gln Gln Ala Thr Ile Gln Leu Glu Ala Gln Val Thr Ala Trp  
 85 90 95  
 Tyr Asp Ser Phe Cys Arg Met Ile Thr Ser Gln

100

105

<210> 2166  
<211> 38  
<212> PRT  
<213> Pinus radiata

<400> 2166

Met	Gly	Ala	Pro	Lys	Gln	Lys	Trp	Thr	Ser	Glu	Glu	Glu	Gly	Ala	Leu
1				5					10					15	
Arg	Ala	Gly	Val	Glu	Lys	Tyr	Gly	Ala	Gly	Lys	Trp	Gln	Thr	Ile	Leu
			20					25					30		
Lys	Asp	Pro	Glu	Phe	Ala										
		35													

<210> 2167  
<211> 158  
<212> PRT  
<213> Pinus radiata

<400> 2167

Ser	Gly	His	Met	Asp	Gly	Gly	Ser	Gly	Glu	Asp	Gln	Asp	Ala	Ala	Asp
1				5					10					15	
Gln	Asp	His	Asp	His	Asp	His	Asp	His	Asp	His	Glu	Gln	Gln	Gln	Thr
			20					25					30		
Arg	Arg	Lys	Arg	Tyr	His	Arg	His	Thr	Ala	Arg	Gln	Ile	Gln	Glu	Met
		35					40					45			
Glu	Ala	Leu	Phe	Lys	Glu	Cys	Pro	His	Pro	Asp	Asp	Lys	Gln	Arg	Gln
	50					55				60					
Arg	Leu	Ser	Ile	Glu	Leu	Gly	Leu	Lys	Pro	Arg	Gln	Val	Lys	Phe	Trp
65				70					75						80
Phe	Gln	Asn	Arg	Arg	Thr	Gln	Met	Lys	Ala	Gln	Gln	Asp	Arg	Ser	Asp
			85						90					95	
Asn	Ala	Ile	Leu	Arg	Ala	Glu	Asn	Glu	Asn	Leu	Arg	Asn	Glu	Asn	Val
			100					105					110		
Ala	Leu	Arg	Glu	Ala	Ile	Lys	Asn	Gly	Ala	Cys	Pro	Asn	Cys	Gly	Gly
		115					120					125			
Ser	Thr	Ser	Leu	Gly	Glu	Met	Pro	Gly	Phe	Asp	Glu	His	His	Phe	Arg
	130					135					140				
Ile	Glu	Asn	Thr	Arg	Leu	Lys	Glu	Glu	Leu	Asp	Arg	Val	Ser		
145					150					155					

<210> 2168  
<211> 122  
<212> PRT  
<213> Pinus radiata

<400> 2168

Met	Gly	Cys	Thr	Gln	Gly	Gln	Arg	Gln	Gly	Glu	Trp	Glu	Gly	Lys	Gly
1				5					10					15	
Val	Pro	Ser	Asn	Ser	Ser	Arg	Arg	Ser	Leu	Arg	Lys	Gly	Leu	Trp	Ser
			20					25					30		
Pro	Asp	Glu	Asp	Ile	Glu	Leu	Thr	Thr	Tyr	Ile	Met	Arg	Lys	Gly	Leu
		35					40					45			
Met	Gly	Cys	Trp	Asn	Tyr	Ile	Ala	Lys	Gln	Ala	Gly	Leu	Gln	Arg	Cys
	50					55					60				
Gly	Lys	Ser	Cys	Arg	Leu	Arg	Trp	Ile	Asn	Tyr	Leu	Arg	Pro	Gly	Leu



65                      70                      75                      80  
 Lys Arg Cys Ala Ile Ser Pro Gln Glu Glu Arg Leu Ile Ile Gln Leu  
                                  85                      90                      95  
 Gln Ser Ser Leu Gly Asn Arg Trp Ser Gln Ile Ala Ala His Leu Pro  
                                  100                      105                      110  
 Gly Arg Thr Asp Asn Glu Val Lys Asn Tyr  
                                  115                      120

<210> 2169  
 <211> 101  
 <212> PRT  
 <213> Pinus radiata

<400> 2169  
 Met Gly Arg Ser Pro Cys Cys Glu Lys Ala His Thr Asn Lys Gly Ala  
   1                      5                      10                      15  
 Trp Thr Gln Gln Glu Asp Thr Arg Leu Val Ala His Ile Arg Ala His  
                                  20                      25                      30  
 Gly Gln Gly Gly Trp Ser Ser Leu Pro Lys Ala Ala Gly Leu Leu Arg  
                                  35                      40                      45  
 Cys Gly Lys Ser Cys Arg Gln Arg Trp Ile Asn Tyr Leu His Pro Asp  
                                  50                      55                      60  
 Leu Lys Arg Ser Asn Phe Ser Glu Glu Glu Asp Glu Leu Ile Val Arg  
  65                      70                      75                      80  
 Leu His Ser Leu Leu Gly Asn Lys Trp Ser Leu Ile Ala Gly Arg Leu  
                                  85                      90                      95  
 Pro Gly Arg Thr Asp  
                                  100

<210> 2170  
 <211> 133  
 <212> PRT  
 <213> Pinus radiata

<400> 2170  
 Arg Leu Leu Pro Gly Arg Thr Asp Asn Ala Ile Lys Asn His Trp Asn  
   1                      5                      10                      15  
 Ser Thr Leu Arg Arg Arg Tyr His Gly Glu Lys Asp Gln Ser Asn Gly  
                                  20                      25                      30  
 Leu Ala Val Asn Leu Glu Ser Ala Ala Glu Asp Lys Glu Thr Met Thr  
                                  35                      40                      45  
 Pro Met Thr Pro Val Thr Ala Thr Ala Thr Ala Thr Ala Met  
                                  50                      55                      60  
 Pro Val Ala Leu Val Phe Pro Thr Ala Ala Asp Asn Val Arg Lys Arg  
  65                      70                      75                      80  
 Ser Asn Ser Ser Cys Ser Ala Asn Asp Asn Pro Gly Asp Ala Glu Val  
                                  85                      90                      95  
 Glu Ser Cys Arg Leu Lys Arg Leu Asn Phe Ser Glu Ser Pro Ser Ser  
                                  100                      105                      110  
 Ser Glu Asn Ile Asn Asn Asn Asn Asn Asn Glu Glu Ala Val Ser Gly  
                                  115                      120                      125  
 His Cys Asn Ser Ala  
                                  130

<210> 2171  
 <211> 120  
 <212> PRT

<213> Pinus radiata

<400> 2171

Met	Arg	Cys	Lys	Thr	Gly	Gln	Ala	Gln	Gly	Val	Leu	Glu	Val	Glu	Gly
1				5					10					15	
Thr	His	Pro	Ala	Pro	Ser	Lys	Pro	Lys	Leu	Arg	Lys	Gly	Leu	Trp	Ser
			20					25					30		
Pro	Val	Glu	Asp	Asn	Gln	Leu	Thr	Asn	Tyr	Ile	Leu	Arg	Arg	Gly	Leu
		35					40					45			
Val	Gly	Cys	Trp	Asn	Tyr	Val	Ala	Lys	Gln	Ala	Gly	Leu	Gln	Arg	Thr
	50					55					60				
Gly	Lys	Ser	Cys	Arg	Leu	Arg	Trp	Ile	Asn	Tyr	Leu	Arg	Pro	Gly	Leu
65					70					75					80
Lys	Arg	His	Pro	Ile	Ser	Arg	Gln	Glu	Gln	Leu	Ile	Ile	Glu	Leu	
				85					90				95		
Gln	Ser	Ile	Leu	Gly	Asn	Arg	Trp	Ser	Gln	Ile	Ala	Ala	Gln	Leu	Pro
			100					105						110	
Gly	Arg	Thr	Asp	Ile	Glu	Ile	Lys								
			115				120								

<210> 2172

<211> 155

<212> PRT

<213> Pinus radiata

<400> 2172

Gln	Gln	Leu	Glu	Ser	Ser	Arg	Ile	Lys	Leu	Lys	Gln	Ile	Glu	Gln	Glu
1				5					10					15	
Leu	Glu	Arg	Val	Lys	Gln	Gln	Gly	Ile	Ser	Ile	Asn	Gly	His	Leu	Gly
			20					25					30		
Asp	His	Asn	Gly	Ser	Gly	Ala	Ala	Ala	Phe	Asp	Met	Glu	Tyr	Gly	Arg
		35					40					45			
Trp	Val	Glu	Glu	Gln	Asn	Arg	Gln	Ala	Arg	Glu	Leu	Arg	Ala	Ser	Leu
	50					55					60				
Gln	Ala	His	Leu	Thr	Asp	Ser	Glu	Leu	Cys	Val	Leu	Val	Asp	Asn	Ala
65					70					75					80
Ile	Ala	His	Tyr	Asp	Glu	Leu	Phe	Arg	Met	Lys	Gly	Ala	Ala	Ser	Lys
				85					90					95	
Leu	Asp	Val	Phe	His	Leu	Met	Ser	Gly	Met	Trp	Lys	Thr	Pro	Thr	Glu
			100					105					110		
Arg	Cys	Phe	Met	Trp	Met	Gly	Gly	Phe	Arg	Pro	Ser	Glu	Leu	Leu	Lys
		115				120						125			
Ile	Leu	Thr	Pro	Gln	Ile	Glu	Pro	Leu	Thr	Glu	Gln	Gln	Ser	Phe	Ala
	130					135					140				
Val	Ser	Ser	Leu	Lys	Leu	Ser	Ser	Gln	Gln	Ala					
145					150					155					

<210> 2173

<211> 63

<212> PRT

<213> Pinus radiata

<400> 2173

Met	Val	Arg	Gly	Lys	Ile	Gln	Met	Lys	Arg	Ile	Glu	Asn	Thr	Ala	Ser
1				5					10					15	
Arg	Gln	Val	Thr	Phe	Ser	Lys	Arg	Arg	Asn	Gly	Leu	Leu	Lys	Lys	Ala
			20					25						30	

Tyr Glu Leu Ser Val Leu Cys Asp Ala Glu Val Gly Leu Met Ile Phe  
           35                  40                  45  
 Ser Pro Gly Gly Lys Leu Tyr Glu Phe Ala Asn Thr Ser Met Glu  
       50                  55                  60

<210> 2174  
 <211> 76  
 <212> PRT  
 <213> Pinus radiata

<400> 2174  
 Arg Ala Arg Lys Thr Glu Ile Leu Val Thr Glu Ile Glu Gln Leu Gln  
   1                  5                  10                  15  
 Arg Lys Glu Trp Ile Leu Ser Glu Glu Asn Ala Phe Leu Gly Lys Lys  
           20                  25                  30  
 Phe Val His Pro His Ser Val Ser Lys Thr Pro Gly Ser Glu Ser Gly  
           35                  40                  45  
 Ser Ile Gln Asn Ser Glu Val Glu Thr Gln Leu Val Met Arg Pro Pro  
       50                  55                  60  
 Cys Thr Asn Ala His Phe Leu Ile Asn Ser Ser His  
   65                  70                  75

<210> 2175  
 <211> 161  
 <212> PRT  
 <213> Eucalyptus grandis

<400> 2175  
 Arg Glu Ser Ala Asn Cys Ala Ser Arg Val Ala Asp Arg Arg Glu Asn  
   1                  5                  10                  15  
 Arg Arg Arg Arg Asp Met Gly Asn Gln Lys Leu Lys Trp Thr Lys Glu  
           20                  25                  30  
 Glu Glu Glu Ala Leu Leu Ala Gly Ile Ala Lys His Gly Ala Gly Lys  
       35                  40                  45  
 Trp Lys Asn Ile Leu Lys Asp Pro Glu Phe Ala Pro Ala Leu Val Asn  
       50                  55                  60  
 Arg Ser Asn Ile Asp Leu Lys Asp Lys Trp Arg Asn Leu Ser Val Gly  
   65                  70                  75                  80  
 Thr Ser Gly Gln Gly Ser Arg Asp Lys Gln Arg Leu Ser Lys Val Lys  
                   85                  90                  95  
 Ser Leu Met Ala Ala Pro Gln Ser Ser Thr Val Pro Leu Asn Pro Gln  
           100                  105                  110  
 Ala His Ala Ala Ser Thr Asp Val Ala Leu Val Asn Ser Ser Asn Ser  
       115                  120                  125  
 Phe Gln Asp Gly Lys Asn Tyr Ser Leu Trp Val Ser Val Leu Leu Phe  
       130                  135                  140  
 Leu Phe Ser Asn Gly Asn Leu Phe Tyr Phe Tyr Pro Leu Leu Ser Phe  
   145                  150                  155                  160  
 Leu

<210> 2176  
 <211> 31  
 <212> PRT  
 <213> Eucalyptus grandis

<400> 2176

Thr	Arg	Gln	Ser	Ala	Arg	Ala	Leu	Leu	Ala	Ile	His	Asp	Tyr	Phe	Ser
1				5					10					15	
Arg	Leu	Arg	Ala	Leu	Ser	Ser	Leu	Trp	Leu	Ala	Arg	Pro	Arg	Glu	
			20					25					30		

<210> 2177  
 <211> 191  
 <212> PRT  
 <213> Eucalyptus grandis

Met	Ala	Ser	Arg	Lys	Glu	Val	Asp	Arg	Ile	Lys	Gly	Pro	Trp	Ser	Pro
1				5					10					15	
Glu	Glu	Asp	Glu	Ala	Leu	Arg	Leu	Leu	Val	Gln	Lys	His	Gly	Pro	Arg
			20					25					30		
Asn	Trp	Ser	Leu	Ile	Ser	Lys	Ser	Ile	Pro	Gly	Arg	Ser	Gly	Lys	Ser
		35					40					45			
Cys	Arg	Leu	Arg	Trp	Cys	Asn	Gln	Leu	Ser	Pro	Gln	Val	Glu	His	Arg
	50					55					60				
Ala	Phe	Thr	Pro	Glu	Glu	Asp	Asp	Ile	Ile	Val	Arg	Ala	His	Ala	Arg
65					70				75					80	
Phe	Gly	Asn	Lys	Trp	Ala	Thr	Ile	Ala	Arg	Leu	Leu	Ser	Gly	Arg	Thr
			85					90						95	
Asp	Asn	Ala	Ile	Lys	Asn	His	Trp	Asn	Ser	Thr	Leu	Lys	Arg	Lys	Cys
		100						105					110		
Ser	Pro	Pro	Leu	Ser	Pro	Leu	Ala	Glu	Glu	Gly	Asn	Asn	Arg	Ala	Phe
		115					120						125		
Asp	Ala	Ala	Ala	Gly	Tyr	Asp	Gly	Asp	Leu	Ser	Pro	Arg	Glu	Arg	Pro
	130					135					140				
Ala	Lys	Arg	Ser	Ala	Ser	Ala	Gly	Pro	Cys	Leu	Ser	Pro	Gly	Ser	Pro
145					150					155					160
Ser	Gly	Ser	Gly	Met	Ser	Asp	Ser	Ser	Val	His	Phe	Val	Tyr	Arg	Pro
			165					170						175	
Val	Ala	Lys	Thr	Gly	Pro	Val	Val	Pro	Pro	Thr	Val	Glu	Ala	Thr	
			180					185					190		

<210> 2178  
 <211> 113  
 <212> PRT  
 <213> Eucalyptus grandis

Gln	Val	Ala	Gln	Leu	Arg	Val	Glu	Asn	Ser	Thr	Leu	Leu	Lys	Arg	Leu
1				5					10					15	
Ser	Asp	Ile	Ser	Gln	Lys	Tyr	Asn	Val	Ala	Ala	Val	Asp	Asn	Arg	Val
			20					25					30		
Leu	Lys	Ala	Asp	Val	Glu	Thr	Leu	Arg	Ala	Lys	Val	Lys	Met	Ala	Glu
		35					40					45			
Glu	Thr	Val	Lys	Arg	Val	Thr	Gly	Leu	Asn	Pro	Met	Leu	His	Val	Met
	50					55					60				
Ser	Asp	Met	Ser	Ser	Val	Gly	Val	Pro	Pro	Phe	Asp	Gly	Ser	Pro	Ser
65					70					75				80	
Asp	Thr	Ser	Ala	Asp	Ala	Ala	Val	Pro	Val	Arg	Asp	Asp	Pro	Lys	His
			85					90						95	
Gln	Phe	Tyr	Gln	Thr	Asn	Ser	Ser	Asn	Pro	Ala	Ser	Ser	Ala	Asp	Asp
			100					105					110		

Met

<210> 2179  
 <211> 314  
 <212> PRT  
 <213> Eucalyptus grandis

<400> 2179

Met	Lys	Arg	Leu	Gly	Ser	Ser	Asp	Ser	Leu	Gly	Ala	Leu	Met	Ser	Ile
1				5					10					15	
Cys	Pro	Pro	Ser	Glu	Glu	Leu	Gln	His	Ser	Pro	Arg	Asn	Gly	Asn	Pro
			20					25					30		
Ile	Tyr	His	Ser	Arg	Asp	Leu	Gln	Ser	Met	Leu	Glu	Leu	Gly	Leu	Asp
		35					40					45			
Glu	Glu	Gly	Cys	Val	Glu	Asp	Gln	Ser	Ala	Gly	Gly	Gly	Gly	His	Val
	50					55					60				
Gly	Gly	Glu	Lys	Lys	Arg	Arg	Leu	Ser	Ile	Asp	Gln	Val	Lys	Ala	Leu
65					70					75					80
Glu	Lys	Asn	Phe	Glu	Val	Glu	Asn	Lys	Leu	Glu	Pro	Glu	Arg	Lys	Val
			85						90					95	
Lys	Leu	Ala	Gln	Glu	Leu	Gly	Leu	Gln	Pro	Arg	Gln	Val	Ala	Val	Trp
			100					105					110		
Phe	Gln	Asn	Arg	Arg	Ala	Arg	Trp	Lys	Thr	Lys	Gln	Leu	Glu	Arg	Asp
		115					120					125			
Tyr	Gly	Val	Leu	Lys	Ser	Ser	Tyr	Glu	Ala	Leu	Lys	Leu	Ser	Tyr	Asp
	130					135					140				
Ala	Leu	Lys	His	Asp	Asn	Glu	Ala	Leu	His	Lys	Glu	Ile	Lys	Glu	Leu
145					150					155					160
Lys	Ser	Lys	Leu	Arg	Glu	Glu	Asp	Asp	Asn	Pro	Glu	Ser	Asn	Leu	Ser
			165						170					175	
Val	Lys	Glu	Glu	Val	Ile	Ile	Pro	Gly	His	Asp	Val	Ser	Asp	Lys	Ile
			180					185					190		
Arg	Ala	Ala	Asp	Asp	Gly	Asp	Asp	Thr	Lys	Arg	Ser	Pro	Pro	Pro	
		195					200				205				
Pro	Ile	Thr	Ala	Pro	Pro	Arg	Glu	Leu	Ser	Phe	Asn	Asn	Gly	Gly	Leu
	210					215					220				
Lys	Asp	Gly	Ser	Ser	Asp	Ser	Asp	Ser	Ser	Ala	Ile	Val	Asn	Glu	Glu
225					230					235					240
Asn	Ala	Ala	Thr	Ser	Ser	Ser	Ser	Pro	Asn	Pro	Ala	Val	Gln	Ser	His
			245						250					255	
Gly	Gly	Phe	Leu	Lys	Phe	Met	Gly	Ser	Ser	Ser	Ser	Ser	Ala	Ser	Pro
		260					265						270		
Pro	Pro	Ser	Pro	Pro	Ala	Ser	Phe	Gly	Gly	Cys	Phe	Ser	Phe	Gln	Phe
		275					280					285			
Gln	Arg	Ala	Tyr	Gln	Pro	Gln	Pro	Gln	Pro	Pro	His	His	His	His	His
	290				295						300				
His	Ser	Pro	Tyr	Val	Lys	Met	Glu	Glu	His						
305					310										

<210> 2180  
 <211> 94  
 <212> PRT  
 <213> Eucalyptus grandis

<400> 2180

Glu	Arg	Tyr	Lys	Ser	Ala	Cys	Ser	Asp	Ser	Ser	His	Pro	Gln	Ser	Val
1				5					10					15	

Ser Asp Val Asn Thr Gln Phe Tyr Gln Gln Glu Ala Ser Lys Leu Arg  
20 25 30  
Arg Gln Ile Arg Glu Ile Gln Val Ser Asp Arg His Leu Leu Gly Glu  
35 40 45  
Gly Ile Ser Asp Leu Ser Phe Lys Asp Leu Lys Asn Leu Glu Ser Lys  
50 55 60  
Leu Glu Lys Ser Ile Ser Arg Val Arg Ser Lys Lys Asn Glu Met Leu  
65 70 75 80  
Phe Ala Glu Ile Glu Tyr Met Gln Lys Arg Gly Leu Val Gln  
85 90

<210> 2181  
<211> 83  
<212> PRT  
<213> Eucalyptus grandis

<400> 2181  
Glu Asn Lys Ile Asn Arg Gln Val Thr Phe Ala Lys Arg Arg Asn Gly  
1 5 10 15  
Leu Leu Lys Lys Ala Tyr Glu Leu Ser Val Leu Cys Asp Ala Glu Val  
20 25 30  
Ala Leu Ile Ile Phe Ser Thr Arg Gly Lys Leu Tyr Glu Phe Cys Ser  
35 40 45  
Ser Pro Ser Met Leu Lys Thr Leu Asp Arg Tyr Gln Lys Cys Ser Tyr  
50 55 60  
Gly Ser Val Glu Val Asn Lys Pro Ser Lys Glu Leu Glu Asn Ala Tyr  
65 70 75 80  
Arg Glu Tyr

<210> 2182  
<211> 108  
<212> PRT  
<213> Eucalyptus grandis

<400> 2182  
Met Gly Arg Gly Lys Ile Glu Ile Gln Lys Ile Glu Asn Asp Thr Asn  
1 5 10 15  
Arg Gln Val Thr Tyr Ser Lys Arg Arg Asn Gly Ile Phe Lys Lys Ala  
20 25 30  
His Glu Leu Thr Val Leu Cys Asp Ala Arg Val Ser Ile Leu Met Leu  
35 40 45  
Ser Gly Asn Lys Lys Leu His Glu Tyr Ile Ser Pro Thr Thr Thr Thr  
50 55 60  
Lys Arg Met Ile Asp Asp Tyr Gln Lys Ala Leu Gly Ile Asp Leu Trp  
65 70 75 80  
Thr Thr His Tyr Asp Arg Met Gln Glu Glu Leu Arg Lys Leu Lys Glu  
85 90 95  
Val Asn Asn Asn Phe Arg Lys Glu Ile Arg Gln Ile  
100 105

<210> 2183  
<211> 40  
<212> PRT  
<213> Eucalyptus grandis

<400> 2183

Arg Asn Leu Met Gly Glu Asp Leu Gly Thr Leu Asn Ser Lys Glu Leu  
 1 5 10 15  
 Glu Gln Leu Glu Arg Gln Leu Glu Ala Ser Leu Lys His Ile Arg Ser  
 20 25 30  
 Thr Lys Thr Gln Cys Met Leu Asp  
 35 40

<210> 2184  
 <211> 161  
 <212> PRT  
 <213> Eucalyptus grandis

<400> 2184  
 Met Val Phe Pro Thr Gln Ala Thr Pro Glu Glu Ser Pro Gln Arg Lys  
 1 5 10 15  
 Met Gly Arg Gly Lys Ile Glu Ile Lys Arg Ile Glu Asn Thr Thr Asn  
 20 25 30  
 Arg Gln Val Thr Phe Cys Lys Arg Arg Asn Gly Leu Leu Lys Lys Ala  
 35 40 45  
 Tyr Glu Leu Ser Val Leu Cys Glu Ala Glu Val Ala Leu Ile Val Phe  
 50 55 60  
 Ser Ser Arg Gly Arg Leu Tyr Glu Tyr Ala Asn Asp Ser Val Lys Ala  
 65 70 75 80  
 Thr Ile Glu Arg Tyr Lys Lys Ala Cys Ser Asp Ser Ser Ser Ser Gly  
 85 90 95  
 Ser Val Ser Glu Ala Asn Val Gln Phe Tyr Gln Gln Glu Ser Ala Lys  
 100 105 110  
 Leu Gln Gln Gln Ile Asn Asn Met Gln Asn Asn Asn Arg Gln Leu Val  
 115 120 125  
 Gly Asp Ser Ile Ala Gly Met Asn Met Lys Asp Met Lys Thr Thr Glu  
 130 135 140  
 Gln Lys Leu Glu Lys Ala Ile Ala Lys Ile Arg Ala Lys Lys Asn Ala  
 145 150 155 160  
 Ile

<210> 2185  
 <211> 92  
 <212> PRT  
 <213> Eucalyptus grandis

<400> 2185  
 Gln His Lys Glu Gln Met Leu Val Glu Ala Asn Arg Glu Leu Arg Lys  
 1 5 10 15  
 Lys Leu Glu Glu Ser Asn Thr Arg Ile Pro Leu Arg Leu Gly Trp Glu  
 20 25 30  
 Ala Glu Asp His Asn Asn Ile Ser Tyr Ser Arg Leu Pro Met Gln Ser  
 35 40 45  
 Gln Gly Leu Ile Phe Gln Pro Leu Gly Gly Asn Pro Thr Leu Gln Ile  
 50 55 60  
 Gly Tyr Asn Pro Ala Gly Ser Asn Glu Leu Asn Val Ser Ala Ala Asp  
 65 70 75 80  
 Gln His Pro Asn Gly Phe Ile Pro Gly Trp Met Leu  
 85 90

<210> 2186  
 <211> 113

<212> PRT  
 <213> Eucalyptus grandis

<400> 2186

Gly	Ser	Lys	Glu	Leu	Glu	Ser	Leu	Glu	Arg	Gln	Leu	Asp	Gly	Ser	Leu
1				5				10					15		
Lys	Gln	Ile	Arg	Ser	Arg	Arg	Thr	Gln	Tyr	Met	Leu	Asp	Lys	Leu	Thr
			20				25					30			
Asp	Leu	Gln	His	Arg	Glu	Gln	Leu	Leu	His	Glu	Ala	Asn	Arg	Thr	Leu
		35				40					45				
Asn	Gln	Arg	Leu	Met	Glu	Gly	Tyr	Gln	Val	Asn	Ala	Leu	Gln	Leu	Asn
	50				55					60					
Gln	His	Ala	Glu	Glu	Val	Gly	Gly	Tyr	Gly	His	Pro	Pro	Pro	Pro	Pro
65				70				75							80
Leu	Pro	Pro	Gln	Pro	Leu	Ala	Gln	Pro	His	Ser	Glu	Ala	Phe	Phe	Asn
			85				90						95		
Pro	Leu	Glu	Cys	Glu	Pro	Thr	Leu	Gln	Met	Gly	Tyr	Gln	Pro	Asp	Pro
			100				105						110		
Val															

<210> 2187  
 <211> 309  
 <212> PRT  
 <213> Eucalyptus grandis

<400> 2187

Met	Thr	Arg	Arg	Cys	Ser	His	Cys	Cys	Asn	Lys	Gly	His	Asn	Ser	Arg
1				5					10				15		
Thr	Cys	Pro	Val	Arg	Gly	Gly	Gly	Gly	Asp	Gly	Gly	Gly	Ala	Ala	Ala
			20				25					30			
Ala	Pro	Ser	Ser	Ser	Ser	Pro	Ser	Thr	Ser	Ser	Ser	Gly	Ala	Ala	Ala
		35				40					45				
Ala	Ala	Ala	Ala	Ser	Ala	Ser	Gly	Gly	Gly	Val	Lys	Leu	Phe	Gly	Val
	50			55					60						
Arg	Leu	Thr	Asp	Gly	Ser	Ile	Met	Lys	Lys	Ser	Ala	Ser	Val	Gly	Cys
65			70					75							80
Leu	Ser	Ala	Ala	His	Tyr	His	Ser	Ser	Ser	Ser	Ala	Ala	Ala	Ser	Pro
			85				90						95		
Asn	Pro	Gly	Ser	Ser	Pro	Ile	Asp	Gly	Ser	Asp	Gly	Tyr	Leu	Ser	Asp
		100				105						110			
Asp	Pro	Ala	Pro	Gly	Ser	Arg	Ser	Ser	Asn	Arg	Arg	Val	Glu	Arg	Lys
		115				120						125			
Lys	Gly	Asn	Pro	Trp	Thr	Glu	Glu	His	Arg	Arg	Arg	Phe	Leu	Ile	Gly
	130				135				140						
Leu	Gln	Lys	Leu	Gly	Lys	Gly	Asp	Trp	Arg	Gly	Ile	Ala	Arg	Asp	Phe
145				150				155							160
Val	Thr	Thr	Arg	Thr	Pro	Thr	Gln	Val	Ala	Ser	His	Ala	Gln	Lys	Tyr
			165				170						175		
Tyr	Ile	Arg	Gln	Ser	Asn	Ala	Gly	Arg	Arg	Lys	Arg	Arg	Ser	Ser	Leu
		180				185							190		
Phe	Asp	Met	Ala	Pro	Asp	Met	Ala	Thr	Ala	Asp	Gln	Pro	Ser	His	Pro
		195				200						205			
Glu	Glu	Thr	Phe	Leu	Pro	Pro	Leu	Val	Arg	Leu	Asn	Asp	Asp	Thr	Asn
	210				215						220				
Ser	Thr	Thr	Ser	Thr	Ser	Met	Gly	Leu	Asp	Leu	Glu	Arg	Thr	Pro	Met
225					230					235					240



Glu	Thr	Ser	His	Pro	Glu	Thr	Ser	Glu	Gly	Gly	Gly	Asp	Val	Ala	Met	
				245					250					255		
Glu	Ser	Ile	Asp	Gln	Val	Pro	Leu	Val	Pro	Cys	Tyr	Phe	Pro	Tyr	Tyr	
			260					265					270			
Leu	Pro	Leu	Pro	Phe	Pro	Met	Trp	Pro	Pro	Asn	Met	Ala	Pro	Pro	Glu	
			275				280					285				
Asp	Gly	Arg	Val	Val	Glu	Thr	Ser	His	His	Arg	Val	Leu	Lys	Pro	Ile	
	290					295					300					
Pro	Val	Ile	Pro	Lys												
305																

<210> 2188  
 <211> 123  
 <212> PRT  
 <213> Eucalyptus grandis

Trp	Asp	Thr	Ser	Ser	Ser	Pro	Pro	Thr	Leu	Leu	Glu	Ser	Val	Asp	Asn	
1				5					10					15		
Phe	Ile	Leu	Ser	Pro	Ala	Arg	Thr	Gly	Lys	Ala	Glu	Ser	Glu	Cys	Leu	
			20					25					30			
Ser	Pro	Arg	Asn	Ser	Gly	Leu	Leu	Asp	Ala	Leu	Val	His	Glu	Ser	Lys	
			35				40					45				
Thr	Met	Ser	Ser	Ala	Lys	Asn	Asn	Ser	Pro	Glu	Lys	Ser	Thr	Asn	Ser	
	50					55					60					
Ser	Ala	Leu	Thr	Pro	Gly	Asp	Ile	Ser	Ser	Ser	Thr	Leu	Asp	Ile	Cys	
65					70				75						80	
Lys	Ser	Glu	Trp	Glu	Glu	Tyr	Gly	Asp	Pro	Ile	Ser	Pro	Pro	Gly	His	
			85					90						95		
Ser	Ala	Thr	Ser	Val	Phe	Asn	Gly	Cys	Thr	Pro	Leu	Ser	Thr	Ser	Gly	
			100					105					110			
Ser	Ser	Leu	Asp	Glu	Gln	Pro	Tyr	Pro	Asp	Thr						
		115					120									

<210> 2189  
 <211> 136  
 <212> PRT  
 <213> Eucalyptus grandis

His	Ile	Arg	Arg	Lys	Leu	Leu	Asn	Arg	Gly	Ile	Asp	Pro	Ala	Thr	His	
1				5					10					15		
Arg	Pro	Leu	Asn	Glu	Pro	Ala	Gln	Asp	Ala	Thr	Thr	Ile	Ser	Phe	Ala	
			20					25					30			
Ala	Ala	Pro	Ser	Lys	Gln	Glu	Pro	Arg	Asp	Asp	Ala	Ile	Ala	Ala	Ala	
		35					40					45				
Leu	Gly	Tyr	Lys	Asn	Glu	Asn	Asn	Pro	Thr	Thr	Thr	Ala	Ala	Thr	Val	
	50					55					60					
Gln	Glu	Lys	Cys	Pro	Asp	Leu	Asn	Leu	Glu	Leu	Arg	Ile	Ser	Pro	Pro	
65					70				75						80	
Cys	Gln	Gln	Gln	His	Gln	Pro	Asp	Ala	Ser	Met	Gly	Met	Val	Glu	Gly	
				85				90						95		
Asn	His	Cys	Phe	Ala	Cys	Ser	Leu	Gly	Leu	Gln	Asn	Ser	Lys	Glu	Cys	
			100					105					110			
Ser	Cys	Arg	Arg	Gly	Ala	Ser	Gly	Gly	Ser	Ser	Ala	His	Gly	Gly	Tyr	
		115					120					125				
Asp	Phe	Leu	Gly	Leu	Lys	Thr	Ser									

130

135

<210> 2190  
 <211> 109  
 <212> PRT  
 <213> Eucalyptus grandis

&lt;400&gt; 2190

Met	Glu	Phe	Pro	Ser	Glu	Phe	Ser	Glu	Ala	Ser	Ser	Gln	Lys	Arg	Ile
1				5					10					15	
Gly	Gly	Arg	Gly	Lys	Ile	Glu	Ile	Lys	Arg	Ile	Glu	Asn	Thr	Thr	Asn
			20					25					30		
Arg	Gln	Val	Thr	Phe	Cys	Lys	Arg	Arg	Asn	Gly	Leu	Leu	Lys	Lys	Ala
		35					40					45			
Tyr	Glu	Leu	Ser	Val	Leu	Cys	Asp	Ala	Glu	Val	Ala	Leu	Ile	Val	Phe
	50					55					60				
Ser	Ser	Arg	Gly	Arg	Leu	Tyr	Glu	Tyr	Ala	Asn	Asn	Ser	Val	Arg	Gly
65					70					75					80
Thr	Ile	Glu	Arg	Tyr	Lys	Lys	Ala	Ser	Ser	Asp	Ser	Ser	Thr	Ser	His
				85					90					95	
Ser	Pro	Phe	Pro	Glu	Val	Glu	His	Ser	Ser	Phe	Ile	Gln			
			100					105							

<210> 2191  
 <211> 116  
 <212> PRT  
 <213> Eucalyptus grandis

&lt;400&gt; 2191

Met	Gly	Arg	Gly	Arg	Val	Glu	Leu	Lys	Arg	Ile	Glu	Asn	Lys	Ile	Asn
1				5					10					15	
Arg	Gln	Val	Thr	Phe	Ser	Lys	Arg	Arg	Asn	Gly	Leu	Leu	Lys	Lys	Ala
			20					25					30		
Tyr	Glu	Leu	Ser	Val	Leu	Cys	Asp	Val	Glu	Val	Ala	Leu	Leu	Ile	Phe
		35					40					45			
Ser	Ser	Arg	Gly	Lys	Leu	Tyr	Glu	Phe	Gly	Ser	Ala	Gly	Pro	Ser	Gly
	50					55					60				
Ile	Asn	Lys	Thr	Leu	Glu	Arg	Tyr	Gln	Arg	Asp	Asn	Phe	Thr	Pro	Gln
65					70					75					80
Asp	Asn	Val	Ala	Glu	His	Glu	Thr	Gln	Gln	Asn	Trp	Phe	Gln	Glu	Ile
				85					90					95	
Ser	Lys	Leu	Lys	Ala	Lys	Tyr	Glu	Leu	Phe	Asn	Lys	Leu	Gln	Lys	His
			100					105					110		
Leu	Leu	Gly	Lys												
			115												

<210> 2192  
 <211> 98  
 <212> PRT  
 <213> Eucalyptus grandis

&lt;400&gt; 2192

Met	Ala	Arg	Gly	Lys	Val	Gln	Met	Lys	Arg	Ile	Glu	Asn	Pro	Val	His
1				5					10					15	
Arg	Gln	Val	Thr	Phe	Cys	Lys	Arg	Arg	Ala	Gly	Leu	Leu	Lys	Lys	Ala
			20					25					30		
Lys	Glu	Leu	Ser	Val	Leu	Cys	Asp	Ala	Asp	Ile	Gly	Leu	Phe	Ile	Phe

35 40 45  
 Ser Pro His Gly Lys Leu Tyr Glu Leu Ala Thr Lys Gly Thr Met Lys  
 50 55 60  
 Gly Leu Ile Glu Arg Tyr Met Lys Thr Thr Gln Ser Gln Ala Ala Leu  
 65 70 75 80  
 Thr Glu Glu Ala Thr Pro Ser Gln Pro Leu Asp Ala Lys Glu Glu Ile  
 85 90 95  
 Asn Ile

<210> 2193  
 <211> 198  
 <212> PRT  
 <213> Eucalyptus grandis

<400> 2193  
 Met Gly Arg Gly Lys Val Glu Leu Lys Arg Ile Glu Asn Lys Ile Asn  
 1 5 10 15  
 Arg Gln Val Thr Phe Ala Lys Arg Arg Asn Gly Leu Leu Lys Lys Ala  
 20 25 30  
 Tyr Glu Leu Ser Val Leu Cys Asp Ala Glu Val Ala Leu Ile Ile Phe  
 35 40 45  
 Ser Asn Arg Gly Lys Leu Tyr Glu Phe Cys Ser Ser Ser Ser Met Met  
 50 55 60  
 Lys Thr Ile Glu Lys Tyr Gln Lys Cys Ser Tyr Gly Ser Leu Glu Thr  
 65 70 75 80  
 Asn Cys Ser Ile Asn Glu Met Gln Asn Ser Tyr Gln Asp Tyr Leu Lys  
 85 90 95  
 Leu Lys Thr Arg Val Glu Val Leu Gln Arg Ser Gln Arg Asn Leu Leu  
 100 105 110  
 Gly Glu Glu Leu Gly Pro Leu Asn Ser Lys Glu Leu Glu Gln Leu Glu  
 115 120 125  
 His Gln Leu Glu Asn Ser Leu Lys Gln Ile Arg Ser Ala Lys Thr Gln  
 130 135 140  
 Phe Met Phe Asp Gln Leu Ala His Leu Gln His Lys Glu Gln Met Leu  
 145 150 155 160  
 Val Glu Ala Asn Arg Glu Leu Arg Lys Lys Leu Glu Glu Ser Asn Thr  
 165 170 175  
 Arg Ile Pro Leu Arg Leu Gly Trp Glu Ala Glu Asp His Asn Asn Ile  
 180 185 190  
 Ser Tyr Ser Arg Leu Pro  
 195

<210> 2194  
 <211> 153  
 <212> PRT  
 <213> Eucalyptus grandis

<400> 2194  
 Met Arg Lys Pro Cys Cys Asp Lys Arg Asp Thr Asn Lys Gly Ala Trp  
 1 5 10 15  
 Ser Lys Gln Glu Asp Gln Lys Leu Ile Asp Tyr Ile Gln Lys His Gly  
 20 25 30  
 Glu Gly Ser Trp Arg Thr Leu Pro Gln Ala Ala Gly Leu Leu Arg Cys  
 35 40 45  
 Gly Lys Ser Cys Arg Leu Arg Trp Ile Asn Tyr Leu Arg Pro Asp Leu  
 50 55 60

Lys Arg Gly Asn Phe Ala Glu Asp Glu Glu Asp Leu Ile Ile Lys Leu  
 65 70 75 80  
 His Ala Leu Leu Gly Asn Arg Trp Ser Leu Ile Ala Gly Arg Leu Pro  
 85 90 95  
 Gly Arg Thr Asp Asn Glu Val Lys Asn Tyr Trp Asn Ser His Leu Arg  
 100 105 110  
 Arg Lys Leu Leu Lys Met Gly Ile Asp Pro Asn Asn His Arg Leu Asn  
 115 120 125  
 Gln Asn Leu Pro Arg Ser Gln Thr Arg Met Pro Arg Gln His Phe Leu  
 130 135 140  
 Ile Gln Tyr Glu Asp His Met Thr Leu  
 145 150

<210> 2195  
 <211> 104  
 <212> PRT  
 <213> Eucalyptus grandis

<400> 2195  
 Glu Ala Leu Gln Gln Ser Leu Val Asp Thr Leu Ser Ser Thr Thr Leu  
 1 5 10 15  
 Ser Pro Thr Gly Ser Gly Asn Val Ala Glu Tyr Met Gly Gln Met Ala  
 20 25 30  
 Ile Ala Met Gly Lys Leu Ala Thr Leu Glu Asn Phe Val His Gln Ala  
 35 40 45  
 Asp Leu Leu Arg Gln Gln Thr Leu Gln Gln Met His Arg Ile Leu Thr  
 50 55 60  
 Thr Arg Gln Ala Ala Arg Ala Leu Leu Val Ile Asn Asp Tyr Ile Ser  
 65 70 75 80  
 Arg Leu Arg Ala Leu Ser Ser Leu Trp Leu Ala Arg Pro Arg Thr Glu  
 85 90 95  
 Asn Ile Cys Ser Ala Lys Leu Phe  
 100

<210> 2196  
 <211> 25  
 <212> PRT  
 <213> Eucalyptus grandis

<400> 2196  
 Asp Pro Leu Met Lys Pro Trp Gln Ile Pro Cys Pro Ile Gln Pro Ile  
 1 5 10 15  
 Ile Ala Ser Ala Asp Leu Phe Glu Cys  
 20 25

<210> 2197  
 <211> 87  
 <212> PRT  
 <213> Eucalyptus grandis

<400> 2197  
 Met Gly Arg Arg Lys Ile Glu Ile Gln Pro Ile Thr His Glu Arg Asn  
 1 5 10 15  
 Arg Ser Val Thr Phe Leu Lys Arg Lys Asn Gly Leu Phe Lys Lys Ala  
 20 25 30  
 Tyr Glu Leu Gly Val Leu Cys Ser Val Asp Val Ala Val Ile Ile Phe  
 35 40 45

Glu Asp Arg Pro Gly His Ser Pro Lys Leu Tyr Gln Tyr Ser Ser Arg  
 50 55 60  
 Gly Ile Gln Asp Ile Val Gln Arg His Leu His His Asp Gly Glu Thr  
 65 70 75 80  
 Asp Asn Arg Gly Pro Gly Asp  
 85

<210> 2198  
 <211> 107  
 <212> PRT  
 <213> Eucalyptus grandis

<400> 2198  
 Arg Asp Arg Thr Phe Leu Val Gly Leu Glu Lys Leu Gly Lys Gly Asp  
 1 5 10 15  
 Trp Arg Gly Ile Ser Arg Ser Tyr Val Thr Thr Arg Thr Pro Ala Gln  
 20 25 30  
 Val Ala Ser His Ala Gln Lys Tyr Phe Leu Arg Gln Val Ser Phe Asn  
 35 40 45  
 Lys Lys Lys Arg Arg Ser Ser Leu Phe Asp Met Val Lys Asn Gln Cys  
 50 55 60  
 Ser Tyr Lys Leu Leu Pro Ser Tyr Arg Leu Ser Ser Ile Ser Leu Met  
 65 70 75 80  
 Gly Phe Asp Lys Phe Leu Leu Tyr Lys Val Asp Val Lys Thr Ala Ala  
 85 90 95  
 Gly Asp Arg Leu Gly Ser Leu Thr Ala Lys Pro  
 100 105

<210> 2199  
 <211> 107  
 <212> PRT  
 <213> Eucalyptus grandis

<400> 2199  
 Met Thr Leu Glu Glu Phe Leu Val Arg Ala Gly Val Val Arg Glu Asp  
 1 5 10 15  
 Thr Gln Met Met Ala Arg Pro Gly Asp Asn Gly Val His Glu Glu Met  
 20 25 30  
 Ser Gln Phe Thr Ser Asn Gly Leu Ala Ser Ser Ala Ala Ala Gly Asn  
 35 40 45  
 Asp Phe Ile Phe Ser Ser Lys Pro Ala Gly Ser Ser Leu Asp Phe Ile  
 50 55 60  
 Gly Thr Arg Pro Thr Gln Leu Gln Gln Gln Pro Gln Pro Gln Pro Leu  
 65 70 75 80  
 Glu Pro Pro Ala Pro Leu Phe Pro Lys Pro Glu Thr Val Ser Phe Ala  
 85 90 95  
 Thr Ser Val His Leu Pro Asn Thr Ala Ser Tyr  
 100 105

<210> 2200  
 <211> 150  
 <212> PRT  
 <213> Eucalyptus grandis

<400> 2200  
 Ala Asn Ala Pro Leu Arg Ile Ala Met Asn Ser Asn Ala Ser Ser Asn  
 1 5 10 15

Pro Gln Ser Met Ala Thr Ser Thr Thr Ser Ala Thr Thr Pro Ala Ala  
20 25 30  
Gly Gly Asp Gly Gly Lys Lys Val Arg Lys Pro Tyr Thr Ile Thr Lys  
35 40 45  
Ser Arg Glu Ser Trp Thr Glu Glu Glu His Asp Lys Phe Leu Glu Ala  
50 55 60  
Leu Gln Leu Phe Asp Arg Asp Trp Lys Lys Ile Glu Asp Phe Val Gly  
65 70 75 80  
Ser Lys Thr Val Ile Gln Ile Arg Ser His Ala Gln Lys Tyr Phe Leu  
85 90 95  
Lys Val Gln Lys Asn Gly Ala Val Ala His Val Pro Pro Pro Arg Pro  
100 105 110  
Lys Arg Lys Ala Ala His Pro Tyr Pro Gln Lys Ala Ser Lys Asn Val  
115 120 125  
Leu Val Pro Leu Gln Ala Ser Met Ala Gln Pro Ser Ser Thr Asn Pro  
130 135 140  
Ala Phe Thr Ile Thr Pro  
145 150

<210> 2201  
<211> 171  
<212> PRT  
<213> Eucalyptus grandis

<400> 2201  
Met Gly Arg Ser Pro Cys Cys Glu Ser Glu His Met Asn Lys Gly Ala  
1 5 10 15  
Trp Ser Lys Glu Glu Asp Glu Arg Leu Ile Ala Tyr Ile Lys Arg His  
20 25 30  
Gly Glu Gly Cys Trp Arg Ser Leu Pro Lys Ala Ala Gly Leu Leu Arg  
35 40 45  
Cys Gly Lys Ser Cys Arg Leu Arg Trp Ile Asn Tyr Leu Arg Pro Asp  
50 55 60  
Leu Lys Arg Gly Asn Phe Ser Asp Glu Glu Asp Glu Leu Ile Ile Thr  
65 70 75 80  
Leu His Ser Leu Leu Gly Asn Lys Trp Ser Leu Ile Ala Ala Arg Leu  
85 90 95  
Pro Gly Arg Thr Asp Asn Glu Ile Lys Asn Tyr Trp Asn Thr His Ile  
100 105 110  
Lys Arg Lys Leu His Ala Arg Gly Ile Asp Pro Gln Thr His Arg Pro  
115 120 125  
Leu Arg Leu His Gln His Cys Trp Cys Trp Cys Cys His Phe Thr  
130 135 140  
Leu Ser Val Leu Thr Leu Thr Thr Ala Ala Thr Arg Pro Arg Leu Thr  
145 150 155 160  
Arg Arg Leu Val Lys Asn Tyr His His His Gln  
165 170

<210> 2202  
<211> 98  
<212> PRT  
<213> Eucalyptus grandis

<400> 2202  
Met Asn Ser Pro Leu Ala Gln Leu Val Asn Pro Arg Arg Met His Thr  
1 5 10 15  
Tyr Glu Pro Phe Asp Gln Phe Pro Met Trp Gly Asp Thr Phe Lys Ala

			20					25				30					
Asp	Lys	Val	Lys	Asn	Leu	Glu	Ala	Ser	Ser	Ser	Val	Ile	Val	His	Ala		
		35					40					45					
Val	Asp	Asp	Gly	Leu	Asp	Lys	Lys	Phe	Glu	Tyr	Val	Ser	His	Glu	Ser		
	50					55					60						
Ala	Glu	Asn	Ser	Ser	Ser	Arg	Ser	Asp	Gln	Glu	Ala	Asn	Arg	Pro	Asp		
65					70					75					80		
Lys	Val	Gln	Arg	Arg	Leu	Ala	Gln	Asn	Arg	Glu	Ala	Ala	Arg	Lys	Ser		
				85					90					95			
Arg	Leu																

<210> 2203  
 <211> 111  
 <212> PRT  
 <213> Eucalyptus grandis

Met	Asn	Ser	Pro	Leu	Ala	Gln	Leu	Val	Asn	Pro	Arg	Arg	Met	His	Thr		
1				5					10					15			
Tyr	Glu	Pro	Phe	Asp	Gln	Phe	Pro	Met	Trp	Gly	Asp	Thr	Phe	Lys	Ala		
			20					25					30				
Asp	Lys	Val	Lys	Asn	Leu	Glu	Ala	Ser	Ser	Ser	Val	Ile	Val	His	Ala		
	35						40					45					
Val	Asp	Asp	Gly	Leu	Asp	Lys	Lys	Phe	Glu	Tyr	Val	Ser	His	Glu	Ser		
	50					55					60						
Ala	Glu	Asn	Ser	Ser	Ser	Arg	Ser	Asp	Gln	Glu	Ala	Asn	Arg	Pro	Asp		
65					70					75					80		
Lys	Val	Gln	Arg	Arg	Leu	Ala	Gln	Asn	Arg	Glu	Ala	Ala	Arg	Lys	Ser		
				85					90					95			
Arg	Leu	Arg	Lys	Lys	Lys	Tyr	Val	Gln	Gln	Leu	Glu	Ser	Ser	Arg			
			100					105						110			

<210> 2204  
 <211> 162  
 <212> PRT  
 <213> Eucalyptus grandis

Met	Ala	Ser	Ser	Ser	Ser	Val	Ala	Ser	Ala	Arg	Lys	Asp	Ala	Asp	Arg		
1				5					10					15			
Ile	Lys	Gly	Pro	Trp	Ser	Pro	Glu	Glu	Asp	Glu	Ala	Leu	Gln	Arg	Leu		
			20					25					30				
Val	Gln	Ser	Tyr	Gly	Pro	Arg	Asn	Trp	Ser	Leu	Ile	Ser	Lys	Ser	Ile		
	35						40					45					
Pro	Gly	Arg	Ser	Gly	Lys	Ser	Cys	Arg	Leu	Arg	Trp	Cys	Asn	Gln	Leu		
	50					55					60						
Ser	Pro	Gln	Val	Glu	His	Arg	Pro	Phe	Thr	Pro	Glu	Glu	Asp	Glu	Ala		
65					70					75					80		
Ile	Val	Arg	Ala	His	Ala	Arg	Phe	Gly	Asn	Lys	Trp	Ala	Thr	Ile	Ala		
				85					90					95			
Arg	Leu	Leu	Asn	Gly	Arg	Thr	Asp	Asn	Ala	Val	Lys	Asn	His	Trp	Asn		
			100					105					110				
Ser	Thr	Leu	Lys	Arg	Lys	Cys	Ser	Ser	Thr	Cys	Ser	Ala	Gly	Gly	Asp		
		115				120						125					
Asp	Ala	Asp	Ala	Leu	Ala	Glu	Gln	Gln	Pro	Leu	Lys	Arg	Ser	Ala	Ser		
	130					135						140					

Leu Gly Thr Pro Thr Gly Gly Asn Asn Ala Val Ser Asp Leu Phe Phe  
 145 150 155 160  
 Ser Pro

<210> 2205  
 <211> 92  
 <212> PRT  
 <213> Eucalyptus grandis

<400> 2205  
 Met Ala Lys Glu Lys Ile Lys Lys Ile Asp Asn Leu Thr Ala  
 1 5 10 15  
 Arg Gln Val Thr Phe Ser Lys Arg Arg Gly Leu Ile Lys Lys Ala  
 20 25 30  
 Glu Glu Leu Ser Val Leu Cys Asp Ala Asp Val Ser Leu Ile Val Phe  
 35 40 45  
 Ser Ala Thr Gly Lys Leu Tyr Asp Phe Ser Ser Ser Arg Gln Met Lys  
 50 55 60  
 Gly Glu Asp Leu Glu Gly Leu Asn Val Glu Glu Leu Asp Gln Leu Glu  
 65 70 75 80  
 Lys Lys Leu Glu Ala Gly Leu Ser Leu Val Ile Lys  
 85 90

<210> 2206  
 <211> 148  
 <212> PRT  
 <213> Eucalyptus grandis

<400> 2206  
 Met Arg Lys Pro Asp Ala Ser Gly Lys Asn Ser Ser Asn Ser Asn Ala  
 1 5 10 15  
 Asn Lys Leu Arg Lys Gly Leu Trp Ser Pro Glu Glu Asp Asp Lys Leu  
 20 25 30  
 Met Asn Tyr Met Leu Asn Asn Gly Gln Gly Cys Trp Ser Asp Val Ala  
 35 40 45  
 Arg Asn Ala Gly Leu Gln Arg Cys Gly Lys Ser Cys Arg Leu Arg Trp  
 50 55 60  
 Ile Asn Tyr Leu Arg Pro Asp Leu Lys Arg Gly Ala Phe Ser Pro Gln  
 65 70 75 80  
 Glu Glu Glu Leu Ile Ile His Leu His Ser Ile Leu Gly Asn Arg Trp  
 85 90 95  
 Ser Gln Ile Ala Arg Leu Pro Gly Arg Thr Asp Asn Glu Ile Lys  
 100 105 110  
 Asn Phe Trp Asn Ser Thr Ile Lys Arg Ser Arg Thr Arg His His  
 115 120 125  
 Leu Leu Val Asp Thr Arg Gln Thr Arg Ala Ile Leu Leu Ala Ser Asp  
 130 135 140  
 Val Lys Asp Val  
 145

<210> 2207  
 <211> 73  
 <212> PRT  
 <213> Eucalyptus grandis

<400> 2207



Ala	Pro	Glu	Ile	Ala	Pro	Pro	Leu	Ala	Ala	Pro	Arg	Gly	Gly	His	His
1				5					10					15	
Arg	Arg	Ala	His	Ser	Glu	Val	Asn	Phe	Arg	Ile	Pro	Glu	Asp	Leu	Asp
			20					25					30		
Leu	Gly	Pro	Asp	Pro	Phe	Glu	Asn	Gly	Pro	Ser	Gly	Ser	Phe	Glu	Asp
		35					40					45			
Phe	Gly	Ser	Glu	Asp	Asp	Leu	Leu	Ser	Thr	Tyr	Met	Asp	Ile	Glu	Lys
	50					55					60				
Phe	Gly	Ser	Ser	Ser	Thr	Arg	Ala	Gly							
65					70										

<210> 2208

<211> 147

<212> PRT

<213> Eucalyptus grandis

<400> 2208

Ser	Glu	Asn	Val	Ser	Gly	Gly	Ala	Ile	Glu	Arg	Pro	Arg	Ala	Thr	Gly
1				5					10					15	
Lys	Leu	Ala	Ala	Pro	Val	Asn	Ser	Pro	Ser	Met	Ser	Ser	Ser	Leu	Asp
			20					25					30		
Leu	Lys	Asn	Ser	Cys	Met	Asp	Ala	Asn	Ala	Asn	Pro	Val	Ser	Ile	Leu
		35					40					45			
Gln	Pro	Gly	Val	Val	Pro	Pro	Glu	Ala	Trp	Leu	Gln	Val	Met	Ser	Leu
	50					55					60				
Cys	Gly	Arg	Leu	Leu	Lys	Ile	Phe	Pro	Trp	Lys	Ala	Ser	Thr	Ser	Val
65					70					75				80	
Leu	Ser	Ala	Val	Ser	Ser	Ser	Cys	Ser	Leu	Gln	Tyr	His	Arg	Leu	Cys
			85						90					95	
Phe	Ser	Lys	Phe	Ala	Leu	Cys	Lys	Asn	Glu	Arg	Glu	Leu	Lys	Arg	Glu
			100					105						110	
Arg	Arg	Lys	Gln	Ser	Asn	Arg	Glu	Ser	Ala	Arg	Arg	Ser	Arg	Leu	Arg
			115				120						125		
Lys	Gln	Ala	Glu	Thr	Glu	Glu	Leu	Gly	Lys	Lys	Val	Asp	Ser	Leu	Ser
	130					135					140				
Ala	Glu	Asn													
145															

<210> 2209

<211> 115

<212> PRT

<213> Eucalyptus grandis

<400> 2209

Phe	Phe	Leu	Tyr	Ile	Ile	Ser	Leu	Phe	Leu	Val	Arg	Glu	Asn	Ser	Glu
1				5					10					15	
Arg	Ser	Arg	Glu	Gly	Thr	Ser	Ser	Asn	Gly	Asp	Gly	Lys	Ser	Glu	Val
			20					25					30		
Gln	Gly	Lys	Val	Ala	Gly	Glu	Val	Asp	Ala	Ala	Ser	Glu	Asn	Val	Ser
		35					40					45			
Gly	Gly	Ala	Ile	Glu	Arg	Pro	Arg	Ala	Thr	Gly	Lys	Leu	Ala	Ala	Pro
	50					55					60				
Val	Asn	Ser	Pro	Ser	Met	Ala	Ser	Ser	Leu	Asp	Leu	Lys	Asn	Ser	Cys
65					70					75				80	
Met	Asp	Ala	Asn	Ala	Asn	Pro	Val	Ser	Ile	Leu	Gln	Pro	Gly	Val	Val
			85						90					95	
Pro	Pro	Glu	Ala	Trp	Leu	Gln	Asn	Glu	Arg	Glu	Leu	Lys	Arg	Glu	Arg

100 105 110  
 Arg Glu Gln  
 115  
 <210> 2210  
 <211> 192  
 <212> PRT  
 <213> Eucalyptus grandis  
 <400> 2210  
 Met Gly Arg Gln Pro Cys Cys Asp Lys Ser Gly Val Lys Lys Gly Pro  
 1 5 10 15  
 Trp Thr Ala Glu Glu Asp Lys Lys Leu Ile Asn Phe Ile Leu Thr Asn  
 20 25 30  
 Gly His Cys Cys Trp Arg Ala Val Pro Lys Leu Ala Gly Leu Arg Arg  
 35 40 45  
 Cys Gly Lys Ser Cys Arg Leu Arg Trp Thr Asn Tyr Leu Arg Pro Asp  
 50 55 60  
 Leu Lys Arg Gly Leu Leu Ser Glu Ala Glu Glu Gln Leu Val Ile Asp  
 65 70 75 80  
 Leu His Ala Arg Leu Gly Asn Arg Trp Ser Lys Ile Ala Ala Arg Leu  
 85 90 95  
 Pro Gly Arg Thr Asp Asn Glu Ile Lys Asn His Trp Asn Thr His Ile  
 100 105 110  
 Lys Lys Lys Leu Leu Lys Met Gly Ile Asp Pro Val Thr His Glu Pro  
 115 120 125  
 Leu Asn Lys Pro Gln Lys Thr Pro Ser Glu His Asp Pro Glu Ala Ser  
 130 135 140  
 Leu Ser Ser Ser Gln Ala Asp Pro Thr Ser Glu Ser Pro Ala Asn Thr  
 145 150 155 160  
 His Gln Pro Asn Asn Ala His Ala Asp Glu Val Gln Leu Val Leu Val  
 165 170 175  
 Leu Pro Val Gly Leu Val Arg Arg Glu Leu Leu Leu Arg Gln Gly Arg  
 180 185 190

<210> 2211  
 <211> 89  
 <212> PRT  
 <213> Pinus radiata

<400> 2211  
 Leu Ser Arg Asn Met Asp Asp Val Phe Val Gln Arg Cys Asn Arg Asn  
 1 5 10 15  
 Phe Thr Ala Arg Asp Arg Leu Ile Ser Lys Glu Arg Arg Asn Phe Gly  
 20 25 30  
 Trp Val Cys Gly Val Thr Glu Glu Glu Glu Leu Ile Ile Arg Met  
 35 40 45  
 Tyr Lys Leu Val Gly Asn Arg Trp Ser Leu Ile Ala Gly Arg Leu Pro  
 50 55 60  
 Gly Arg Lys Ala Glu Glu Ile Glu Arg Tyr Trp Lys Met Arg Ser Ile  
 65 70 75 80  
 Asn Ala Ala Pro Leu Lys Pro Asn Thr  
 85

<210> 2212  
 <211> 237  
 <212> PRT

<213> Pinus radiata

<400> 2212

Met	Val	Lys	Glu	Leu	Leu	Met	Met	Cys	Ser	Asn	Cys	Gly	His	Ser	Gly
1				5				10					15		
His	Ser	Ser	Arg	Ala	Cys	Pro	Asp	Arg	Gly	Ser	Val	Lys	Leu	Phe	Gly
			20				25					30			
Val	Arg	Leu	Ile	Ala	Thr	Asp	Asp	Gly	Met	Ala	Cys	Met	Arg	Lys	Ser
		35				40					45				
Leu	Ser	Met	Gly	Asn	Leu	Gly	His	Tyr	Arg	Ser	Leu	Tyr	Asn	Val	Asn
	50				55					60					
His	Cys	Ser	Gly	Thr	Ser	Glu	Cys	Gly	Ser	Ala	Asp	Gln	Asp	Gly	Tyr
65				70					75					80	
Leu	Ser	Asp	Gly	Phe	Val	His	Ser	Ser	Ser	Asn	Ala	Arg	Glu	Arg	Lys
			85					90					95		
Lys	Gly	Val	Pro	Trp	Ser	Glu	Glu	Glu	His	Arg	Met	Phe	Leu	Tyr	Gly
			100					105					110		
Leu	Glu	Lys	Leu	Gly	Lys	Gly	Asp	Trp	Arg	Gly	Ile	Ser	Arg	Asn	Phe
		115				120						125			
Val	Thr	Thr	Arg	Thr	Pro	Thr	Gln	Val	Ala	Ser	His	Ala	Gln	Lys	Tyr
	130					135					140				
Phe	Leu	Arg	Gln	Ser	Asn	Leu	Asn	Lys	Arg	Lys	Arg	Arg	Ser	Ser	Leu
145					150					155					160
Phe	Asp	Met	Cys	Pro	His	Asp	Ser	His	Val	Thr	Ser	Ser	Phe	Arg	Arg
			165					170						175	
Glu	Asp	Ser	Leu	Gly	Asn	Leu	Tyr	Glu	Phe	Ser	Pro	Lys	His	Ser	Ala
			180				185						190		
Leu	Gly	Val	Ser	Pro	Asn	Phe	Glu	Leu	Tyr	Ser	Phe	Gly	Val	Ser	Pro
	195					200						205			
Thr	Leu	Ser	Leu	Gly	Arg	Ser	Leu	Gln	Pro	Val	Glu	Ala	Val	Leu	Glu
	210				215						220				
Glu	Lys	Ala	Ala	His	Tyr	His	Pro	Val	Asn	Ser	Glu	Glu			
225				230					235						

<210> 2213

<211> 55

<212> PRT

<213> Pinus radiata

<400> 2213

Trp	Leu	Gln	Leu	Cys	Ser	Gly	Ile	Asp	Glu	His	Ala	Ala	Gly	Phe	Cys
1				5				10						15	
Ser	Gln	Leu	Val	Phe	Ala	Pro	Ile	Asp	Ala	Ser	Phe	Ala	Asp	Asp	Ala
		20					25					30			
Pro	Leu	Ala	Pro	Ser	Gly	Phe	Arg	Val	Ile	Pro	Leu	Glu	Ser	Gly	Ser
	35					40					45				
Glu	Cys	Phe	Ser	Ser	Lys	Thr									
	50				55										

<210> 2214

<211> 119

<212> PRT

<213> Pinus radiata

<400> 2214

Gly	Val	Leu	Lys	Phe	Pro	Cys	Phe	Asp	Leu	Ile	Thr	Met	Asn	Leu	Met
1				5				10						15	

Glu Ser Phe Glu Ala Lys Gly Lys Gly Glu Lys Arg Arg Thr Val Arg  
                   20                                  25                                  30  
 Gly Lys Thr Gln Leu Lys Arg Ile Glu Asn Gly Thr Ser Arg Gln Val  
                   35                                  40                                  45  
 Thr Phe Cys Lys Arg Arg Asn Gly Leu Leu Lys Lys Ala Tyr Glu Leu  
                   50                                  55                                  60  
 Ser Val Leu Cys Asp Ala Glu Val Ala Leu Ile Val Phe Ser Pro Arg  
   65                                  70                                  75                                  80  
 Gly Lys Leu Tyr Glu Phe Ala Asn Pro Ser Met Gln Lys Met Leu Glu  
                                   85                                  90                                  95  
 Arg Tyr Glu Lys Cys Ser Glu Gly Ser Asn Pro Thr Ser Thr Ala Lys  
                                   100                                  105                                  110  
 Glu Gln Asp Val Gln Cys Leu  
                                   115

<210> 2215  
 <211> 146  
 <212> PRT  
 <213> Pinus radiata

<400> 2215  
 Pro Lys Gln Asp Gln Lys Leu Val Thr Tyr Ile Gln Glu His Gly His  
   1                                  5                                  10                                  15  
 Gly Ser Trp Arg Ala Leu Pro Gln Lys Ala Gly Leu Leu Arg Cys Gly  
                                   20                                  25                                  30  
 Lys Ser Cys Arg Leu Arg Trp Ala Asn Tyr Leu Arg Pro Asp Ile Lys  
                                   35                                  40                                  45  
 Arg Gly Lys Phe Thr Val Gln Glu Glu Gln Thr Ile Ile Gln Leu His  
                                   50                                  55                                  60  
 Ala Leu Leu Gly Asn Arg Trp Ser Ala Ile Ala Thr His Leu Pro Lys  
   65                                  70                                  75                                  80  
 Arg Thr Asp Asn Glu Ile Lys Asn Tyr Trp Asn Thr His Leu Lys Lys  
                                   85                                  90                                  95  
 Arg Leu Leu Gln Met Gly Ile Asp Pro Val Thr His Lys Pro Lys Ser  
                                   100                                  105                                  110  
 Glu Ser Ile Met Val Pro Gly Val Gln Ser Ser Asn Gly Ser Ser Asn  
                                   115                                  120                                  125  
 Leu Ser His Met Ala Gln Trp Glu Ser Ala Arg Leu Glu Ala Glu Ser  
                                   130                                  135                                  140  
 Lys Ala  
 145

<210> 2216  
 <211> 106  
 <212> PRT  
 <213> Pinus radiata

<400> 2216  
 Gly Ile Phe Ile Gly Gly Ser Cys Val Gly Gly Asp Gln Ser His Ser  
   1                                  5                                  10                                  15  
 Met Ser Gly Asn Gly Ala Leu Ala Phe Asp Met Glu Tyr Ala Arg Trp  
                                   20                                  25                                  30  
 Leu Asp Glu His His Arg Gln Ile Asn Glu Leu Arg Ser Ala Val Asn  
                                   35                                  40                                  45  
 Ser His Val Gly Asp Asn Glu Leu Arg Gly Leu Val Glu Gly Val Met  
                                   50                                  55                                  60  
 Gly His Tyr Asp Glu Ile Phe Arg Leu Lys Thr Val Ala Ser Lys Ala













<213> Pinus radiata

<400> 2229

Glu Asp Leu Asp Asp Cys Ile His Pro Pro Glu Lys Lys Arg Arg Leu  
1 5 10 15  
Thr Ala Asp Gln Val Gln Phe Leu Glu Arg Ser Phe Glu Ile Glu Asn  
20 25 30  
Lys Leu Glu Pro Glu Arg Lys Ile Gln Leu Ala Lys Glu Leu Gly Leu  
35 40 45  
Gln Pro Arg Gln Val Ala Val Trp Phe Gln Asn Arg Arg Ala Arg Trp  
50 55 60  
Lys Thr Lys Gln Leu Glu Arg Asp Tyr Asp Ile Leu Lys Ser Arg Tyr  
65 70 75 80  
Glu Asn Leu Arg Val Asp Tyr Asp Ser Leu Lys Glu Lys Asp Lys  
85 90 95  
Leu Arg Ala Glu Val Thr Phe Leu Thr Asp Lys Leu His Asp Ser Asp  
100 105 110  
His Glu Ala Leu Thr Lys Asp Ser Glu Ser Ala Asp Lys Lys Val Tyr  
115 120 125  
Pro Gln Pro Ala Ser His Ser Asp Cys Val Gly Glu Pro Glu Arg Ser  
130 135 140  
Thr Ala Ala Lys Asp Thr Pro Pro Gly Cys Lys His Glu Asp Leu Leu  
145 150 155 160  
Ser Ser Gly Thr Asp Ser Ser Gly Val Leu Asp Glu Asp Ser Pro His  
165 170 175  
His Val Asp Cys Gly  
180

<210> 2230

<211> 107

<212> PRT

<213> Pinus radiata

<400> 2230

Met Gly Arg Ser Pro Cys Cys Glu Lys Ala His Thr Asn Lys Gly Ala  
1 5 10 15  
Trp Thr Lys Glu Glu Asp Asp Arg Leu Ile Ala His Ile Arg Thr His  
20 25 30  
Gly Glu Gly Cys Trp Arg Ser Leu Pro Lys Ala Ala Gly Leu Met Arg  
35 40 45  
Cys Gly Lys Ser Cys Arg Leu Arg Trp Ile Asn Tyr Leu Arg Pro Asp  
50 55 60  
Leu Lys Arg Gly Asn Phe Ser Glu Glu Glu Asp Glu Leu Val Ile Lys  
65 70 75 80  
Leu His Ser Leu Leu Gly Asn Lys Trp Ser Leu Ile Ala Gly Arg Leu  
85 90 95  
Pro Gly Arg Thr Asp Asn Glu Ile Lys Asn Tyr  
100 105

<210> 2231

<211> 125

<212> PRT

<213> Pinus radiata

<400> 2231

Lys Lys Gly Val Pro Trp Thr Glu Glu Glu His Arg Gln Phe Leu Met  
1 5 10 15

Gly	Leu	Arg	Lys	Tyr	Gly	Lys	Gly	Asp	Trp	Arg	Ser	Ile	Ser	Arg	Asn
			20					25				30			
Phe	Val	Val	Ser	Arg	Thr	Pro	Thr	Gln	Val	Ala	Ser	His	Ala	Gln	Lys
		35					40					45			
Tyr	Tyr	Ile	Arg	Leu	Gly	Ser	Asp	Asn	Lys	Asn	Lys	Arg	Arg	Ser	Ser
	50					55					60				
Ile	His	Asp	Ile	Thr	Thr	Val	His	Gly	Thr	Asp	Arg	Met	Pro	Ser	Pro
65					70					75					80
Leu	Leu	His	Val	Ser	Asn	Arg	Gln	Thr	Asn	Ser	Pro	Ser	Thr	Gln	Ala
				85					90					95	
Glu	Met	Asn	His	Ser	Pro	Cys	Leu	Asp	Ile	Ser	Ile	Ser	Asp	Phe	Thr
			100					105					110		
Arg	Thr	Ser	Asn	Lys	Leu	Phe	Gly	Thr	Ser	Asn	Arg	Trp			
		115					120					125			

<210> 2232

<211> 150

<212> PRT

<213> Pinus radiata

<400> 2232

Met	Thr	Arg	Lys	Cys	Ser	His	Cys	Gly	Asn	Asn	Gly	His	Asn	Ser	Arg
1				5					10					15	
Thr	Cys	Pro	Asn	Arg	Gly	Gly	Val	Lys	Leu	Phe	Gly	Val	Arg	Leu	Thr
			20					25					30		
Asp	Gly	Pro	Ile	Arg	Lys	Ser	Ala	Ser	Met	Gly	Asn	Leu	Met	Met	Met
		35					40					45			
Ser	Asn	Pro	Ser	Ser	Pro	Ala	Asp	Pro	Ser	Glu	Pro	Ala	Ser	Ala	Ala
	50					55					60				
Ala	Ala	Ala	Ala	Ala	Ala	Ala	Ala	Ser	Gly	Tyr	Leu	Ser	Asp	Gly	Leu
65					70					75					80
Val	Glu	Ala	Ser	Thr	Ser	Ser	Asn	Ser	Arg	Glu	Arg	Lys	Lys	Gly	Val
				85					90					95	
Pro	Trp	Thr	Glu	Glu	Glu	His	Arg	Met	Phe	Leu	Leu	Gly	Leu	Gln	Lys
			100					105						110	
Leu	Gly	Lys	Gly	Asp	Trp	Arg	Gly	Ile	Ala	Arg	Asn	Phe	Val	Ile	Thr
		115					120					125			
Arg	Thr	Pro	Thr	Gln	Val	Ala	Ser	His	Ala	Gln	Lys	Tyr	Phe	Ile	Arg
		130				135						140			
Gln	Ser	Asn	Met	Thr	Arg										
145					150										

<210> 2233

<211> 102

<212> PRT

<213> Pinus radiata

<400> 2233

Met	Lys	Met	Ser	Leu	Pro	Ser	Asn	Val	Leu	Thr	Leu	Ser	Ala	Asp	Ser
1				5					10					15	
Asn	Ser	Asn	Ser	Asn	Ser	Ile	Ser	Ser	Ser	Gly	Asp	Glu	Leu	Ala	Ala
			20					25					30		
Lys	Val	Arg	Lys	Pro	Tyr	Thr	Ile	Thr	Lys	Gln	Arg	Glu	Arg	Trp	Ser
		35					40					45			
Glu	Asp	Glu	His	Leu	Lys	Phe	Leu	Glu	Ala	Leu	Lys	Met	Tyr	Gly	Arg
	50					55					60				
Ala	Trp	Arg	Arg	Ile	Glu	Glu	His	Ile	Gly	Thr	Lys	Thr	Ala	Val	Gln



			20					25					30			
Gln	Thr	Glu	Ser	Gln	Val	Ala	Arg	Lys	Arg	Ser	Phe	Asp	Gln	Met	Ile	
		35					40					45				
Val	Asp	Gly	Ala	Asn	Ala	Gln	Ser	Thr	Asn	Ile	Gln	Ser	Tyr	Asn	Ser	
	50					55					60					
Gln	Ala	Gly	Glu	Pro	Tyr	Val	Thr	Ser	Gly	Gly	His	Ala	Met	Gly	Asn	
65					70					75					80	
Pro	Ile	Ser	Gln	Ala	Val	Ala	Ala									
				85												

<210> 2237  
 <211> 66  
 <212> PRT  
 <213> Pinus radiata

Gln	Leu	Lys	Trp	Lys	Glu	Arg	Ile	Leu	Thr	Glu	Glu	Asn	Leu	Phe	Leu	
1				5					10					15		
Arg	Lys	Lys	Cys	Gly	Asp	Glu	His	Val	Asp	Cys	Ser	Ala	Phe	Arg	Thr	
			20					25					30			
Pro	Pro	Ala	Gln	Leu	Arg	Ser	Ile	Gln	Asn	Ile	Asp	Val	Glu	Thr	Gln	
		35					40					45				
Leu	Val	Ile	Arg	Pro	Pro	Thr	Val	Gln	Gln	His	Pro	Asp	Val	Asp	Ser	
	50					55					60					
Pro	Arg															
65																

<210> 2238  
 <211> 176  
 <212> PRT  
 <213> Pinus radiata

Met	Gly	Arg	Thr	Pro	Cys	Cys	Leu	Lys	Val	Gly	Leu	Asn	Arg	Gly	Pro	
1				5					10					15		
Trp	Thr	Pro	Glu	Glu	Asp	Leu	Cys	Leu	Ser	Asn	Tyr	Ile	Glu	Ala	His	
			20					25					30			
Gly	Glu	Gly	Gly	Trp	Arg	Thr	Leu	Pro	Lys	Lys	Ala	Gly	Leu	Leu	Arg	
		35					40					45				
Cys	Gly	Lys	Ser	Cys	Arg	Leu	Arg	Trp	Met	Asn	Tyr	Leu	Arg	Pro	Asp	
	50					55					60					
Val	Lys	His	Gly	His	Ile	Leu	Pro	Glu	Glu	Glu	Asp	Leu	Ile	Leu	Arg	
65					70					75					80	
Leu	His	Arg	Leu	Leu	Gly	Asn	Arg	Trp	Ser	Leu	Ile	Ala	Gly	Arg	Met	
			85						90					95		
Pro	Gly	Arg	Thr	Asp	Asn	Glu	Val	Lys	Asn	Tyr	Trp	Asn	Thr	His	Leu	
			100					105					110			
Ser	Lys	Lys	Leu	Ile	Ser	Gln	Gly	Ile	Asp	Pro	Arg	Thr	His	Lys	Pro	
		115					120					125				
Leu	Ser	Glu	Ser	Glu	Asp	Ile	Cys	Ser	Ser	Pro	Gly	Asn	Ser	Glu	Val	
	130					135					140					
Ser	Arg	Lys	Ser	Gln	Arg	Glu	Asn	Asn	Ala	Glu	Ile	Pro	Arg	Lys	Val	
145					150					155					160	
Ala	Asp	Gly	Ala	Val	Asp	Ile	Gln	Asp	Lys	Glu	Glu	Asp	Ile	Thr	Glu	
				165					170					175		

<210> 2239

<211> 105  
 <212> PRT  
 <213> Pinus radiata

<400> 2239  
 Met Gly Arg Gly Lys Ile Glu Ile Lys Met Ile Glu Asn Thr Ala Asn  
 1 5 10 15  
 Arg Gln Val Thr Phe Ser Lys Arg Lys Gly Gly Leu Leu Lys Lys Ala  
 20 25 30  
 His Glu Leu Ser Val Leu Cys Asn Ala Glu Ile Ala Leu Ile Val Phe  
 35 40 45  
 Ser Asn Thr Gly Lys Leu His Asp Trp Ser Ser Ser Ser Met Lys Lys  
 50 55 60  
 Val Met Glu Lys Tyr Gln Lys Ser Asp Gln Gly Leu Gly Leu Met Asp  
 65 70 75 80  
 Tyr Gln Gln Gln Gln Leu Leu Cys Glu Met Lys Arg Ile Thr Lys Glu  
 85 90 95  
 Asn Glu Ser Leu Arg Ala Arg Leu Arg  
 100 105

<210> 2240  
 <211> 78  
 <212> PRT  
 <213> Pinus radiata

<400> 2240  
 Met Ser Asn Gly Arg Leu Cys Glu Asp Leu Asp Arg Ile Lys Gly Pro  
 1 5 10 15  
 Trp Ser Pro Glu Glu Asp Ala Ser Leu Gln Arg Leu Val Gln Lys Tyr  
 20 25 30  
 Gly Pro Arg Asn Trp Thr Leu Ile Ser Lys Gly Ile Pro Gly Arg Ser  
 35 40 45  
 Gly Lys Ser Cys Arg Leu Arg Trp Cys Asn Gln Leu Ser Pro Gln Val  
 50 55 60  
 Glu His Arg Pro Phe Thr Pro Ser Glu Asp Ala Ala Ile Leu  
 65 70 75

<210> 2241  
 <211> 67  
 <212> PRT  
 <213> Pinus radiata

<400> 2241  
 Met Gly Arg Ala Leu Gly Arg Thr Glu Ile Lys Arg Ile Glu Asn Glu  
 1 5 10 15  
 Val Ser Arg Asn Val Ser Phe Arg Lys Arg Arg Arg Gly Leu Leu Lys  
 20 25 30  
 Lys Ala Ala Glu Leu Ser Ile Leu Cys Asp Ala Thr Val Gly Val Val  
 35 40 45  
 Val Phe Ser Pro Ala Gly Lys Leu Ser Glu Tyr Ala Ser Thr Ser Glu  
 50 55 60  
 Gln Met Asp  
 65

<210> 2242  
 <211> 131  
 <212> PRT

<213> Pinus radiata

<400> 2242

Ile Arg Asn Pro Thr Asn Arg His Ser Ser Phe Tyr Lys Arg Lys Gly  
1 5 10 15  
Gly Leu Leu Lys Lys Ala Phe Glu Leu Ala Val Leu Cys Asp Ala Glu  
20 25 30  
Val Ala Leu Ile Ile Phe Ser Glu Thr Gly Arg Ile Tyr Glu Phe Ala  
35 40 45  
Ser His Asp Asp Val Thr Thr Val Leu Ala Lys Tyr Arg Ile Gln Thr  
50 55 60  
Lys Thr Ala Gly Asn Ala Met Pro Ser Ser Leu Gln Lys Thr Glu Phe  
65 70 75 80  
Asp Gln Leu Gln Val Arg Met Leu Gln Glu Lys Ile Asp Asn Leu Glu  
85 90 95  
Lys Thr Lys Lys His Met Val Gly Asp Asn Leu Glu Ser Leu Thr Trp  
100 105 110  
Lys Glu Leu Gln Gln Val Glu Lys Lys Leu Ser Lys Ala Thr Lys Ile  
115 120 125  
Ile Val Ala  
130

<210> 2243

<211> 29

<212> PRT

<213> Pinus radiata

<400> 2243

Gln Pro Val Ala Pro Glu Ser Ile Val Pro Pro His Gln Pro Pro His  
1 5 10 15  
Asn Gln Thr Pro Asn Gln Tyr Met Gln Gly Trp Trp Val  
20 25

<210> 2244

<211> 107

<212> PRT

<213> Pinus radiata

<400> 2244

Met Gly Arg Ser Pro Cys Cys Glu Lys Ala His Thr Asn Lys Gly Ala  
1 5 10 15  
Trp Thr Lys Glu Glu Asp Asp Arg Leu Ile Ala His Ile Arg Thr His  
20 25 30  
Gly Glu Gly Cys Trp Arg Ser Leu Pro Lys Ala Ala Gly Leu Met Arg  
35 40 45  
Cys Gly Lys Ser Cys Arg Leu Arg Trp Ile Asn Tyr Leu Arg Pro Asp  
50 55 60  
Leu Lys Arg Gly Asn Phe Ser Glu Glu Glu Asp Glu Leu Ile Ile Lys  
65 70 75 80  
Leu His Ser Leu Leu Gly Asn Lys Trp Ser Leu Ile Ala Gly Arg Leu  
85 90 95  
Pro Gly Arg Thr Asp Asn Glu Ile Lys Asn Tyr  
100 105

<210> 2245

<211> 168

<212> PRT

<213> Pinus radiata

<400> 2245

Thr	Ala	Glu	Glu	Asp	Arg	Lys	Leu	Val	Asn	Phe	Ile	Thr	Leu	His	Gly
1				5					10					15	
His	Gly	Cys	Trp	Arg	Glu	Val	Pro	Lys	Leu	Ala	Gly	Leu	Leu	Arg	Cys
		20						25					30		
Gly	Lys	Ser	Cys	Arg	Leu	Arg	Trp	Thr	Asn	Tyr	Leu	Arg	Pro	Asp	Leu
		35					40					45			
Lys	Arg	Gly	Leu	Leu	Ser	Glu	Ser	Glu	Glu	Lys	Leu	Ile	Ile	Asp	Leu
	50				55						60				
His	Ala	Ala	Ile	Gly	Asn	Arg	Trp	Ser	Arg	Ile	Ala	Ala	Gln	Leu	Pro
65					70				75					80	
Gly	Arg	Thr	Asp	Asn	Glu	Ile	Lys	Asn	Tyr	Trp	Asn	Thr	Arg	Ile	Lys
			85					90						95	
Lys	Lys	Leu	Arg	Gln	Met	Gly	Ile	Asp	Pro	Val	Thr	His	Lys	Pro	Leu
		100						105					110		
Thr	Gln	Met	Gln	Met	Gln	Ser	Thr	Pro	Ala	Gln	Thr	Leu	Leu	Leu	Gln
		115					120					125			
Glu	Asn	Asp	Thr	Glu	Gln	Gln	Gln	Gln	Glu	Gln	His	Asn	Glu	Pro	Asp
	130				135						140				
Pro	Asp	Gln	Asn	Gln	Ser	Ser	Asn	Gly	Thr	Val	Glu	Thr	Leu	Val	Ser
145				150						155				160	
Arg	Ala	Arg	Glu	Pro	His	Asp	His								
				165											

<210> 2246

<211> 164

<212> PRT

<213> Pinus radiata

<400> 2246

Ser	Asp	Gly	Thr	Thr	Thr	Met	Ser	Thr	Tyr	Glu	Arg	Lys	Ala	Ser	Leu
1				5					10					15	
Arg	Glu	Phe	Tyr	Ala	Val	Ile	Tyr	Pro	Ser	Leu	Leu	Gln	Leu	Glu	Gly
		20						25				30			
Gly	Ile	Thr	Glu	Met	Glu	Asp	Asn	Lys	Gln	Lys	Leu	Ile	Cys	Lys	Glu
		35					40					45			
Arg	Tyr	Lys	Lys	Arg	Val	Asp	Glu	Glu	Arg	Arg	His	Leu	Ser	Glu	Leu
	50				55						60				
Asp	Leu	Glu	Arg	Glu	Lys	Glu	Cys	Gly	Ile	Cys	Met	Glu	Thr	Gln	Thr
65					70				75					80	
Lys	Val	Val	Leu	Pro	Asn	Cys	Ser	His	Ala	Met	Cys	Leu	Asn	Cys	Tyr
			85					90					95		
Arg	Glu	Trp	His	Ala	Arg	Ser	Glu	Ser	Cys	Pro	Phe	Cys	Arg	Asp	Ser
		100					105						110		
Leu	Lys	Arg	Val	Asn	Ser	Thr	Asp	Leu	Trp	Ile	Phe	Thr	Ser	Asn	Glu
		115					120					125			
Glu	Val	Val	Asp	Met	Glu	Thr	Leu	Gly	Arg	Glu	Asn	Leu	Lys	Arg	Leu
	130				135						140				
Phe	Asn	Tyr	Ile	Asp	Lys	Leu	Pro	Leu	Ile	Val	Pro	Glu	Ser	Leu	Phe
145				150						155				160	
Tyr	Val	Tyr	Asp												

<210> 2247

<211> 414



<212> PRT  
 <213> Eucalyptus grandis

<400> 2247

Met	Gly	Arg	His	Ser	Cys	Cys	Tyr	Lys	Gln	Lys	Leu	Arg	Lys	Gly	Leu
1				5					10					15	
Trp	Ser	Pro	Glu	Glu	Asp	Glu	Lys	Leu	Leu	Arg	His	Ile	Ser	Gln	Tyr
			20					25					30		
Gly	His	Gly	Cys	Trp	Ser	Ser	Val	Pro	Lys	Gln	Ala	Gly	Leu	Gln	Arg
			35				40					45			
Cys	Gly	Lys	Ser	Cys	Arg	Leu	Arg	Trp	Ile	Asn	Tyr	Leu	Arg	Pro	Asp
	50					55					60				
Leu	Lys	Arg	Gly	Ala	Phe	Ser	Gln	Asp	Glu	Glu	Asp	Leu	Ile	Ile	Glu
65					70					75					80
Leu	His	Ala	Ala	Leu	Gly	Asn	Lys	Trp	Ser	Gln	Ile	Ala	Ala	Asn	Leu
				85					90					95	
Pro	Gly	Arg	Thr	Asp	Asn	Glu	Ile	Lys	Asn	Leu	Trp	Asn	Ser	Cys	Leu
			100					105					110		
Lys	Lys	Lys	Leu	Arg	Gln	Arg	Gly	Ile	Asp	Pro	Val	Ser	His	Arg	Pro
			115				120					125			
Leu	Ser	Glu	Val	Glu	Asn	Ser	Asp	Asp	Lys	Asp	Ala	Thr	Ser	Gly	Gln
	130					135					140				
Thr	Gln	Asp	Lys	Val	Ser	Arg	Gly	Ser	Val	Glu	Leu	Leu	Ser	Gln	Leu
145					150					155					160
Asn	Pro	Gln	Phe	Ser	Ser	Ser	Thr	Thr	Ala	Arg	Ser	Ser	Lys	Asn	Ser
				165					170					175	
Asn	Leu	Met	Ala	Pro	Thr	Leu	Ser	Lys	Asp	Thr	Val	Ala	Asp	Gly	Phe
			180					185					190		
Val	Ser	Asn	His	Gln	Glu	Asn	Ser	Met	Met	Asn	Ser	Cys	Ile	Ser	Asp
	195					200						205			
Phe	Val	Asp	Asn	Phe	Ser	Leu	Gln	Gln	Leu	Asn	Tyr	Ser	Ser	Ser	Asp
	210					215					220				
Ser	Arg	Phe	Ser	Asn	Leu	Cys	Phe	Thr	Gln	Thr	Gly	Arg	Ala	His	Gly
					230					235					240
Asn	Thr	Ile	Phe	Ser	Asp	Phe	Asn	Ser	Asn	Val	Ile	Ser	Ala	Ile	Ser
				245					250					255	
Pro	Pro	Ser	Ser	Asn	Ser	Leu	Phe	Pro	Thr	Ala	Ser	Met	Gly	Phe	Asn
				260				265					270		
Phe	Lys	Pro	Ser	Asn	Ala	Val	Pro	Ser	Ala	Asn	Ser	Thr	Ser	Ser	Ala
				275				280				285			
Ser	Thr	Gly	Thr	Ala	Asp	Phe	His	Asn	Ser	Gly	Ser	Tyr	Phe	Gly	Asn
	290					295					300				
Ser	Leu	Val	Ser	Trp	Gly	Leu	Leu	Ala	Asp	Cys	Gly	Ser	Pro	Asp	Lys
305					310					315					320
Glu	Gly	Ser	Thr	Ser	Ile	His	Pro	Leu	Glu	Val	His	Gln	Pro	Gly	Asp
				325					330					335	
Phe	Lys	Trp	Ala	Ala	Glu	Tyr	Leu	Gln	Asn	Pro	Leu	Phe	Met	Ala	Ala
				340				345					350		
Ala	Leu	Gln	Asn	Gln	Ala	Gln	Glu	Gln	Ser	Asn	Leu	Tyr	Asn	Gln	Ile
				355			360					365			
Lys	Pro	Glu	Thr	Gln	Phe	Pro	Pro	Asp	His	Ser	Thr	Thr	Ser	Met	Trp
	370					375					380				
Asp	His	Leu	Gln	Gly	His	Glu	Ser	Leu	Asp	Asn	Ser	Leu	Asn	Thr	Cys
385					390					395					400
Gly	Lys	Asp	Ile	Gln	Arg	Leu	Thr	Ala	Leu	Leu	Gly	His	Asn		
				405						410					

<210> 2248  
 <211> 205  
 <212> PRT  
 <213> Eucalyptus grandis

<400> 2248

Met	Arg	Tyr	Pro	Ala	Pro	Ala	Pro	Ala	Ser	Arg	Gly	Lys	Ser	Thr	Ser
1				5					10					15	
Thr	Ala	Thr	Pro	Cys	Cys	Ser	Lys	Val	Gly	Ile	Lys	Arg	Gly	Pro	Trp
			20					25					30		
Thr	Pro	Glu	Glu	Asp	Glu	Val	Leu	Ala	Ser	Tyr	Val	Arg	Arg	Glu	Gly
		35					40					45			
Glu	Gly	Arg	Trp	Arg	Thr	Leu	Pro	Lys	Arg	Ala	Gly	Leu	Gln	Arg	Cys
	50					55					60				
Gly	Lys	Ser	Cys	Arg	Leu	Arg	Trp	Met	Asn	Tyr	Leu	Arg	Pro	Ser	Val
65					70				75						80
Lys	Arg	Gly	Gln	Ile	Ala	Pro	Asp	Glu	Glu	Asp	Leu	Ile	Leu	Arg	Leu
				85					90					95	
His	Arg	Leu	Leu	Gly	Asn	Arg	Trp	Ser	Leu	Ile	Ala	Gly	Arg	Ile	Pro
			100					105					110		
Gly	Arg	Thr	Asp	Asn	Glu	Ile	Lys	Asn	Tyr	Trp	Asn	Thr	His	Leu	Ser
		115					120					125			
Lys	Lys	Leu	Ile	Ser	Gln	Gly	Ile	Asp	Pro	Arg	Thr	His	Lys	Pro	Leu
	130					135					140				
Leu	Asn	His	Asn	Pro	Ser	Ser	Ser	Leu	Ala	Ala	His	Leu	Gln	Asp	Thr
145				150					155						160
Tyr	Asn	Ala	Ser	Thr	Phe	Thr	Pro	Lys	Ala	Thr	Tyr	Pro	Asn	Pro	Thr
			165						170					175	
Val	Pro	Val	Glu	Thr	Gly	Asp	Glu	Asn	Asp	Leu	Lys	Val	Gly	Arg	
			180				185					190			
Gln	Pro	Ala	Gly	Ser	Ala	Ser	Lys	Arg	Gly	Arg	Cys	Gln			
		195					200					205			

<210> 2249  
 <211> 195  
 <212> PRT  
 <213> Eucalyptus grandis

<400> 2249

Met	Asp	Lys	Lys	Pro	Asp	Asp	Asp	Ser	Gly	Lys	Ser	Gln	Asp	Val	Glu
1				5					10					15	
Val	Arg	Lys	Gly	Pro	Trp	Thr	Met	Glu	Glu	Asp	Leu	Ile	Leu	Ile	Asn
			20					25					30		
Tyr	Ile	Ala	Asn	His	Gly	Glu	Gly	Ser	Trp	Asn	Ser	Leu	Ala	Lys	Ala
		35					40					45			
Ala	Gly	Leu	Lys	Arg	Thr	Gly	Lys	Ser	Cys	Arg	Leu	Arg	Trp	Leu	Asn
	50					55					60				
Tyr	Leu	Arg	Pro	Asp	Val	Arg	Arg	Gly	Asn	Ile	Thr	Thr	Glu	Glu	Gln
65					70				75						80
Leu	Leu	Ile	Met	Glu	Leu	His	Ala	Lys	Trp	Gly	Asn	Arg	Trp	Ser	Lys
			85						90					95	
Ile	Ala	Lys	His	Leu	Pro	Gly	Arg	Thr	Asp	Asn	Glu	Ile	Lys	Asn	Phe
			100					105					110		
Trp	Arg	Thr	Arg	Ile	Gln	Lys	His	Ile	Lys	Gln	Ala	Glu	Ala	Phe	Ser
		115					120					125			
Gly	Gln	Ser	Ser	Glu	Met	Ser	Asp	Gln	Ala	Ser	Thr	Ser	His	Met	Ser
	130						135					140			



65                      70                      75                      80  
 Arg Arg Leu Ala Gln Asn Arg Glu Ala Ala Arg Lys Ser Arg Leu Arg  
                                  85                      90                      95  
 Lys Lys Ala Tyr Val Gln Gln Leu Glu Ala Ser Arg Leu Lys Leu Met  
                                  100                      105                      110  
 Gln Leu Glu Gln Glu Val Asp Arg Ala Arg Gln Gln Gly Val Tyr Met  
                                  115                      120                      125  
 Ala Ser Gly Val Asp Ser Ala Tyr Pro Gly Tyr Gly Gly Cys Leu Asn  
                                  130                      135                      140  
 Ser Gly Ile  
 145

<210> 2252  
 <211> 43  
 <212> PRT  
 <213> Eucalyptus grandis

<400> 2252  
 Met Met Ala Val Thr Ser Ala Cys Lys Asp Lys Met Gly Ile Asp Asn  
   1                                 5                                 10                                 15  
 Gly Lys Tyr Val Arg Tyr Thr Pro Glu Gln Val Glu Ala Leu Glu Arg  
                                  20                                 25                                 30  
 Leu Tyr His Glu Cys Pro Lys Pro Ser Ser Leu  
                                  35                                 40

<210> 2253  
 <211> 54  
 <212> PRT  
 <213> Pinus radiata

<400> 2253  
 Met Gly Arg Ser Pro Cys Cys Glu Lys Ala His Thr Asn Lys Gly Ala  
   1                                 5                                 10                                 15  
 Trp Thr Lys Gln Glu Asp Asp Arg Leu Ile Ala His Ile Arg Ala His  
                                  20                                 25                                 30  
 Gly Glu Gly Gly Trp Arg Ser Leu Pro Lys Ala Ala Gly Cys Leu Pro  
                                  35                                 40                                 45  
 Ala Leu Cys Phe Leu Asn  
                                  50

<210> 2254  
 <211> 66  
 <212> PRT  
 <213> Pinus radiata

<400> 2254  
 Met Gly Arg Ala Pro Cys Cys Glu Lys Val Gly Leu Lys Lys Gly Pro  
   1                                 5                                 10                                 15  
 Trp Thr Pro Glu Glu Asp Gln Lys Leu Val Thr Tyr Ile Gln Glu His  
                                  20                                 25                                 30  
 Gly His Gly Ser Trp Arg Ala Leu Pro Gln Lys Ala Gly Asp Tyr Glu  
                                  35                                 40                                 45  
 Phe Ile Phe Ser Ser Arg Thr Cys Lys Lys Phe Ser Val Phe Leu Phe  
                                  50                                 55                                 60  
 Phe Gly  
 65

<210> 2255  
 <211> 67  
 <212> PRT  
 <213> Pinus radiata

<400> 2255  
 Met Gly Arg Ser Pro Cys Cys Ala Lys Glu Gly Leu Asn Arg Gly Ala  
 1 5 10 15  
 Trp Thr Lys Thr Glu Asp Ile Ile Leu Ser Glu Tyr Ile Arg Ile His  
 20 25 30  
 Gly Asp Gly Gly Trp Arg Ser Leu Pro Lys Lys Ala Gly Leu Lys Arg  
 35 40 45  
 Cys Gly Lys Ser Cys Arg Leu Arg Trp Leu Asn Tyr Leu Arg Pro Asp  
 50 55 60  
 Ile Lys Arg  
 65

<210> 2256  
 <211> 226  
 <212> PRT  
 <213> Pinus radiata

<400> 2256  
 Met Gly Arg Ala Pro Cys Cys Ser Asn Asp Asp Arg Asn Lys Gly Ala  
 1 5 10 15  
 Trp Thr Lys Glu Glu Asp Asp Arg Leu Ile Gln Tyr Ile Lys Val His  
 20 25 30  
 Gly Glu Gly Cys Trp Arg Ser Leu Pro Lys Ala Ala Gly Leu Leu Arg  
 35 40 45  
 Cys Gly Lys Ser Cys Arg Leu Arg Trp Ile Asn Tyr Leu Arg Pro Asp  
 50 55 60  
 Leu Lys Arg Gly Phe Phe Ser Glu Asp Glu Asp Asp Leu Ile Leu Lys  
 65 70 75 80  
 Leu His Ala Leu Leu Gly Asn Asn Arg Trp Ser Leu Ile Ala Gly Arg  
 85 90 95  
 Leu Pro Gly Arg Thr Asp Asn Glu Ile Lys Asn Tyr Trp Asn Ser His  
 100 105 110  
 Leu Lys Arg Lys Leu Ile Ser Met Gly Ile Asp Pro Leu Thr His Arg  
 115 120 125  
 Pro Phe Gln Lys Thr Ser His His His Pro Ser Pro Pro Gln Asn Val  
 130 135 140  
 Arg Glu Ala Glu Thr Thr Pro Ser Ile Gly Ile Val Gln Asp Phe Phe  
 145 150 155 160  
 Arg Cys Pro Ser Glu Leu Ser Thr Lys Ser Glu Gln Ile Ser Asp Ala  
 165 170 175  
 Ala Ser Gly Leu Ala Gln Asp Glu Gln Pro His Pro Asn Leu Asn Leu  
 180 185 190  
 Asn Leu Glu Leu Ser Ile Ala Arg Ser Ser Val His Arg Val Ala Glu  
 195 200 205  
 Lys Glu Asp Val Val Asn Ser Gln Gln Gly Glu Ser Asn Leu Ser Glu  
 210 215 220  
 Gly Lys  
 225

<210> 2257  
 <211> 101  
 <212> PRT











1. The first step is to identify the problem or question that needs to be addressed. This involves understanding the context and the specific requirements of the task.

[illegible]

<400> 2264															
Met	Gly	Arg	Gly	Lys	Ile	Glu	Ile	Lys	Met	Ile	Glu	Asn	Ala	Thr	Asn
1				5					10					15	
Arg	Gln	Val	Thr	Phe	Ser	Lys	Arg	Arg	Gly	Gly	Leu	Lys	Lys	Lys	Ala
			20					25					30		
Gln	Glu	Leu	Ser	Val	Leu	Cys	Asn	Ala	Glu	Val	Ala	Leu	Ile	Ile	Phe
			35				40					45			
Ser	Ser	Thr	Gly	Lys	Leu	His	Glu	Trp	Ser	Ser	Ser	Ser	Ser	Phe	Phe
	50					55				60					
Met	Leu	Gln	Lys	Ser	Met	Lys	Lys	Ile	Leu	Glu	Arg	Tyr	Gln	Lys	Ser
65					70					75					80
Glu	Gln	Gly	Leu	Gly	Leu	Met	Asp	Tyr	Gln	His	Gln	Gln	Leu	Leu	Cys
				85					90					95	
Glu	Met	Arg	Arg	Ile	Thr	Lys	Glu	Asn	Glu	Ser	Leu	Gln	Glu	Arg	Leu
			100					105					110		
Arg	His	Met	Asn	Gly	Glu	Glu	Val	Asn	Ser	Leu	Lys	Leu	Pro	Glu	Leu
		115					120					125			

723

[illegible][illegible]

<400> 2266															
Met	Asp	Leu	Met	Glu	Ser	Phe	Glu	Ala	Lys	Gly	Lys	Gly	Glu	Lys	Arg
1				5					10					15	
Arg	Thr	Val	Arg	Gly	Lys	Thr	Gln	Leu	Lys	Arg	Ile	Glu	Asn	Gly	Thr
			20					25					30		
Ser	Arg	Gln	Val	Thr	Phe	Cys	Lys	Arg	Arg	Asn	Gly	Leu	Leu	Lys	Lys
		35					40					45			
Ala	Tyr	Glu	Leu	Ser	Val	Leu	Cys	Asp	Ala	Glu	Val	Ala	Leu	Ile	Val
	50					55					60				
Phe	Ser	Pro	Arg	Gly	Lys	Arg	Tyr	Glu	Phe	Ala	Asn	Pro	Ser	Met	Gln
65					70					75					80
Lys	Met	Leu	Ala	Arg	Tyr	Glu	Asn	Phe	Ser	Glu	Gly	Ser	Lys	Ala	Thr
			85						90					95	
Ser	Thr	Ala	Lys	Glu	Gln	Asp	Val	Gln	Gly	Leu					
			100					105							

<400> 2267  
Ala Arg Gly Lys Thr Gln Met Arg Lys Ile Glu Ser Ala Thr Ser Arg

1				5					10					15	
Gln	Val	Thr	Phe	Ser	Lys	Arg	Arg	Asn	Gly	Leu	Met	Lys	Lys	Ala	Tyr
			20					25					30		
Glu	Leu	Ser	Val	Leu	Cys	Asp	Ala	Gln	Leu	Gly	Leu	Ile	Val	Phe	Ser
		35					40					45			
Pro	Arg	Gly	Lys	Val	Tyr	Glu	Phe	Ser	Ser	Thr	Cys	Met	Gln	Lys	Met
	50					55					60				
Leu	Ala	Arg	Tyr	Glu	Lys	Cys	Ser	Glu	Gly	Ser	Asp	Thr	Ser	Thr	Ser
65					70					75					80
Lys	Glu	Gln	Asp	Val	Gln	Cys	Leu	Lys	Arg	Glu	Ser	Ala	Asn	Met	Glu
			85					90					95		
Glu	Arg	Ile	Glu	Ile	Leu	Glu	Ser	Met	Gln	Arg	Lys	Met	Leu	Gly	Glu
		100						105					110		
Glu	Leu	Ala	Ser	Cys	Ala	Leu	Lys	Asp	Leu	Asn	Gln	Leu	Glu	Ser	Gln
		115					120				125				
Val	Glu	Arg	Gly	Leu	Arg										
130															

<210> 2268  
 <211> 138  
 <212> PRT  
 <213> Pinus radiata

Met	Gly	Arg	Gly	Arg	Val	Gln	Leu	Arg	Arg	Ile	Glu	Asn	Lys	Ile	Asn
1				5					10					15	
Arg	Gln	Val	Thr	Phe	Ser	Lys	Arg	Arg	Asn	Gly	Leu	Leu	Lys	Lys	Ala
		20					25					30			
Tyr	Glu	Leu	Ser	Val	Leu	Cys	Asp	Ala	Glu	Val	Ala	Leu	Ile	Ile	Phe
	35					40					45				
Ser	Thr	Arg	Gly	Lys	Leu	Tyr	Glu	Phe	Ala	Ser	Ser	Ser	Met	Asn	Lys
	50				55					60					
Thr	Leu	Glu	Arg	Tyr	Glu	Lys	Cys	Ser	Tyr	Ala	Met	Gln	Asp	Thr	Thr
65				70					75						80
Gly	Val	Ser	Asp	Arg	Glu	Ala	Gln	Asn	Trp	His	Gln	Glu	Val	Thr	Lys
			85				90					95			
Leu	Lys	Gly	Lys	Val	Glu	Leu	Leu	Gln	Arg	Ser	Gln	Arg	His	Leu	Leu
		100					105				110				
Gly	Glu	Asp	Leu	Gly	Pro	Leu	Asn	Val	Lys	Glu	Leu	Gln	Gln	Leu	Glu
		115					120				125				
Arg	Gln	Leu	Glu	Val	Ala	Leu	Thr	His	Leu						
130						135									

<210> 2269  
 <211> 141  
 <212> PRT  
 <213> Pinus radiata

Met	Gly	Lys	Lys	Arg	Val	Glu	Leu	Lys	Arg	Ile	Gln	Asn	Pro	Ser	Ser
1				5					10					15	
Arg	His	Ala	Thr	Phe	Ser	Lys	Arg	Lys	Asn	Gly	Leu	Leu	Lys	Lys	Ala
		20					25					30			
Phe	Glu	Leu	Ser	Val	Leu	Cys	Asp	Ala	Glu	Val	Ala	Leu	Ile	Ile	Phe
	35					40					45				
Ser	Glu	Thr	Gly	Lys	Ile	Tyr	Glu	Phe	Ala	Ser	Asn	Asn	Asp	Met	Ala
	50					55				60					







Glu	His	Asp	Lys	Phe	Leu	Glu	Ala	Leu	His	Leu	Phe	Asp	Arg	Asp	Trp
65					70					75					80
Lys	Lys	Ile	Glu	Ala	Phe	Val	Gly	Ser	Lys	Thr	Val	Ile	Gln	Ile	Arg
				85					90					95	
Ser	His	Ala	Gln	Lys	Tyr	Phe	Leu	Lys	Val	Gln	Lys	Asn	Gly	Thr	Ser
			100					105					110		
Glu	His	Val	Pro	Pro	Pro	Arg	Pro	Lys	Arg	Lys	Ala	Ala	His	Pro	Tyr
		115					120					125			
Pro	Gln	Lys	Ala	Pro	Lys	Ala	Pro	Val	Val	Ser	Gln	Val	Asn	Gly	Pro
	130					135					140				
Phe	Gln	Val	Ser	Ser	Ala	Phe	Leu	Glu	Pro	Gly	His	Ile	Val	Arg	Pro
145					150					155					160
Asp	Gly	Ser	Ala	Leu	Leu	Gly	Asn	Ser	Arg	Thr	Ser	Val	Ala	Leu	Ser
				165					170					175	
Ser	Trp	Ser	His	Asn	Ser	Val	Pro	Ala	Met	Ser	Ala	Ser	Gln	Gly	Thr
			180					185					190		
Lys	Asp	Val	Gly	Ile	Ser	Gly	Pro	Pro	Val	Pro	Ser	Asn	Cys	Cys	Asn
	195						200					205			
Ser	Ser	Ser	Asn	Asp	Ser	Thr	Pro	Arg	Ser	Trp	Pro	Asn	Ala	Gln	Ala
	210					215					220				
Ile	Glu	Pro	Leu	Asp	Gln	Gln	Lys	His	Leu	Arg	Val	Met	Pro	Asp	Phe
225					230					235					240
Ala	Gln	Val	Tyr	Arg	Phe	Ile	Gly	Ser	Val	Phe	Asp	Pro	Asp	Ala	Gly
				245					250					255	
Gly	His	Leu	Gln	Arg	Leu	Lys	Gln	Met	Asp	Pro	Ile	Asn	Leu	Glu	Thr
			260					265					270		
Val	Val	Leu	Leu	Met	Lys	Asn	Leu	Ser	Ala	Asn	Leu	Thr	Ser	Pro	Glu
	275						280					285			
Phe	Glu	Lys	Tyr	Gln	His	Gly	Leu	Phe	Ala	Ser	Tyr	Glu	Gly	Gly	Pro
	290					295					300				
Glu	Lys	Ser	Lys	Ser	Gly	Gly	Ser	Phe	Lys	Leu	Leu	Pro	Glu	Lys	Ser
305					310					315					320
Gly	Ser	Leu	Ile	Leu	Ser	Ala									
				325											

<210> 2277

<211> 225

<212> PRT

<213> Pinus radiata

<400> 2277

Met	Gly	Arg	Ser	Pro	Cys	Cys	Glu	Lys	Ala	His	Thr	Asn	Lys	Gly	Ala
1				5					10					15	
Trp	Thr	Lys	Gln	Glu	Asp	Asp	Arg	Leu	Ile	Ala	His	Ile	Arg	Ala	His
			20					25					30		
Gly	Glu	Gly	Gly	Trp	Arg	Ser	Leu	Pro	Lys	Ala	Ala	Gly	Leu	Leu	Arg
		35					40					45			
Cys	Gly	Lys	Ser	Cys	Arg	Leu	Arg	Trp	Ile	Asn	Tyr	Leu	Arg	Pro	Asp
	50					55					60				
Leu	Lys	Arg	Gly	Ser	Phe	Thr	Glu	Glu	Glu	Asp	Glu	Leu	Ile	Ile	Lys
65					70					75					80
Leu	His	Ser	Phe	Val	Gly	Asn	Lys	Trp	Ser	Leu	Ile	Ala	Gly	Arg	Leu
			85					90						95	
Pro	Gly	Arg	Thr	Asp	Asn	Glu	Ile	Lys	Asn	Tyr	Trp	Asn	Thr	His	Ile
			100					105					110		
Lys	Arg	Lys	Leu	Leu	Ser	Lys	Gly	Leu	Asp	Pro	Gln	Thr	His	Arg	Pro
	115						120					125			



Leu Gly Gln Pro Asn Asn Thr Pro Val Thr Arg Pro Val Leu Glu His  
 130 135 140  
 Glu Ile Pro Ala Phe Gln Asn Pro Ala Thr Pro Glu Ile Ala Asp Leu  
 145 150 155 160  
 Leu Gln His His Arg Leu Glu Ser Ser Pro Ile Lys Pro Ala Ala Ser  
 165 170 175  
 Asp Ala Glu Glu His Pro Asp Leu Asn Leu Asn Leu Cys Ile Ser Leu  
 180 185 190  
 Pro Ser Asn Ser Ala Pro Ala Val Asn Arg Val Ser Ser Val Asp Thr  
 195 200 205  
 Thr Val Asp Ser Asn Ser Asn Ser Gly Asp Gly Leu Cys Trp Gln Phe  
 210 215 220  
 Leu  
 225

<210> 2278  
 <211> 69  
 <212> PRT  
 <213> Pinus radiata

<400> 2278  
 Met Leu Leu Gln Asn Val Pro Pro Ala Leu Leu Val Arg Phe Leu Arg  
 1 5 10 15  
 Glu His Arg Ser Glu Trp Ala Asp Cys Asn Ile Asp Ala Tyr Ser Ser  
 20 25 30  
 Ala Thr Met Lys Ala Asn Ala Tyr Asn Val Pro Gly Ser Leu Gly Gly  
 35 40 45  
 Ile Thr Gly Ser Gln Val Ile Leu Pro Leu Ala His Thr Val Glu His  
 50 55 60  
 Glu Glu Phe Leu Glu  
 65

<210> 2279  
 <211> 65  
 <212> PRT  
 <213> Eucalyptus grandis

<400> 2279  
 Met Ala Arg Phe Pro Arg Val Asp Lys Ser Asn Ser Lys Lys Thr Val  
 1 5 10 15  
 Lys Lys Gly Ala Trp Ser Ala Glu Glu Asp Gln Lys Leu Val Ala Tyr  
 20 25 30  
 Ile Lys Arg Tyr Gly Ile Trp Asn Trp Thr His Met Ala Glu Pro Ala  
 35 40 45  
 Gly Leu Ala Arg Thr Gly Lys Ser Cys Arg Leu Arg Trp Met Asn Tyr  
 50 55 60  
 Leu  
 65

<210> 2280  
 <211> 39  
 <212> PRT  
 <213> Eucalyptus grandis

<400> 2280  
 Pro Asn Ile Lys His Gly Asn Ile Thr Gln Glu Glu Glu Glu Ile Ile  
 1 5 10 15

Ile Asn Leu His Arg Val Leu Gly Asn Arg Trp Ala Ser Ile Ala Ser  
 20 25 30  
 Arg Leu Ser Gly Arg Thr Asp  
 35

<210> 2281  
 <211> 59  
 <212> PRT  
 <213> Eucalyptus grandis

<400> 2281  
 Arg Lys Pro Cys Cys Asp Lys Gln Asp Thr Asn Lys Gly Ala Trp Ser  
 1 5 10 15  
 Lys Gln Glu Asp Gln Lys Leu Ile Asp Tyr Ile Arg Lys His Gly Glu  
 20 25 30  
 Gly Cys Trp Arg Thr Leu Pro Lys Ala Ala Gly Leu Leu Arg Cys Gly  
 35 40 45  
 Lys Ser Cys Arg Leu Arg Trp Ile Asn Tyr Leu  
 50 55

<210> 2282  
 <211> 48  
 <212> PRT  
 <213> Eucalyptus grandis

<400> 2282  
 Pro Asp Leu Lys Arg Gly Asn Phe Ala Glu Asp Glu Glu Asp Leu Ile  
 1 5 10 15  
 Ile Lys Leu His Ala Leu Leu Gly Asn Arg Trp Ser Leu Ile Ala Gly  
 20 25 30  
 Arg Leu Pro Gly Arg Thr Asp Asn Glu Val Lys Asn Tyr Trp Asn Ser  
 35 40 45

<210> 2283  
 <211> 19  
 <212> PRT  
 <213> Eucalyptus grandis

<400> 2283  
 Cys Cys Ser Lys Lys Ala Val Lys Arg Gly Phe Trp Ser Pro Glu Glu  
 1 5 10 15  
 Asp Leu Lys

<210> 2284  
 <211> 45  
 <212> PRT  
 <213> Eucalyptus grandis

<400> 2284  
 Trp Thr Arg Glu Glu Asp Asn Leu Leu Ile His Ser Ile Thr Cys His  
 1 5 10 15  
 Gly Glu Gly Arg Trp Asn Met Leu Ala Lys Ser Ala Gly Leu Lys Arg  
 20 25 30  
 Thr Gly Lys Ser Cys Arg Leu Arg Trp Leu Asn Tyr Leu  
 35 40 45

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Arg	Pro	Asp	Ile	Lys	Arg	Gly	Asn	Leu	Thr	Pro	Gln	Glu	Gln	Leu	Met
1				5					10					15	
Ile	Leu	Glu	Leu	His	His	Lys	Trp	Gly	Asn	Arg	Trp	Ser	Lys	Ile	Ala
			20					25					30		
Gln	Tyr	Leu	Pro	Gly	Arg	Thr	Asp	Asn	Glu	Ile	Lys	Asn	Tyr	Trp	Arg
		35					40					45			
Thr	Arg	Val	Gln	Lys	Gln	Ala	Arg	Gln							
	50					55									

<400> 2286

Met	Ala	Ser	Arg	Lys	Glu	Val	Asp	Arg	Ile	Lys	Gly	Pro	Trp	Ser	Pro
1				5					10					15	
Glu	Glu	Asp	Glu	Ala	Leu	Arg	Leu	Leu	Val	Gln	Lys	His	Gly	Pro	Arg
			20				25						30		
Asn	Trp	Ser	Leu	Ile	Ser	Lys	Ser	Ile	Pro	Gly	Arg	Ser	Gly	Lys	Ser
		35				40						45			
Cys	Arg	Leu	Arg	Trp	Cys	Asn	Gln	Leu							
	50					55									

[illegible]

<400> 2288															
Met	Gly	Arg	His	Ser	Cys	Cys	Tyr	Lys	Gln	Lys	Leu	Arg	Lys	Gly	Leu
1				5					10					15	
Trp	Ser	Pro	Glu	Asp	Glu	Lys	Leu	Leu	Arg	Tyr	Ile	Thr	Gln	Tyr	
			20				25					30			



<400> 2292  
 Pro Asp Leu Lys Arg Gly Asn Phe Ala Glu Asp Glu Glu Asp Leu Ile  
 1 5 10 15  
 Ile Lys Leu His Ala Leu Leu Gly Asn Arg Trp Ser Leu Ile Ala Gly  
 20 25 30  
 Arg Leu Pro Gly Arg Thr Asp Asn Glu Val Lys Asn Tyr Trp Asn Ser  
 35 40 45  
 His Leu Arg Arg Lys Leu Leu Lys Met Gly Ile Asp Pro Asn Asn His  
 50 55 60  
 Arg  
 65

<210> 2293  
 <211> 54  
 <212> PRT  
 <213> Eucalyptus grandis

<400> 2293  
 Met Gly Arg Ser Pro Cys Cys Glu Lys Ala His Thr Asn Lys Gly Ala  
 1 5 10 15  
 Trp Thr Lys Glu Glu Asp Gln Arg Leu Ile Asp Tyr Ile Arg Leu His  
 20 25 30  
 Gly Glu Gly Cys Trp Arg Ser Leu Pro Lys Ser Ala Gly Leu Leu Arg  
 35 40 45  
 Cys Gly Lys Ser Cys Arg  
 50

<210> 2294  
 <211> 65  
 <212> PRT  
 <213> Eucalyptus grandis

<400> 2294  
 Met Ala Arg Phe Pro Arg Val Asp Lys Ser Asn Ser Lys Lys Thr Val  
 1 5 10 15  
 Lys Lys Gly Ala Trp Ser Ala Glu Glu Asp Gln Lys Leu Val Ala Tyr  
 20 25 30  
 Ile Lys Arg Tyr Gly Ile Trp Asn Trp Thr His Met Ala Glu Pro Ala  
 35 40 45  
 Gly Leu Ala Arg Thr Gly Lys Ser Cys Arg Leu Arg Trp Met Asn Tyr  
 50 55 60  
 Leu  
 65

<210> 2295  
 <211> 40  
 <212> PRT  
 <213> Eucalyptus grandis

<400> 2295  
 Arg Pro Asn Ile Lys His Gly Asn Ile Thr Gln Glu Glu Glu Glu Ile  
 1 5 10 15  
 Ile Ile Asn Leu His Arg Val Leu Gly Asn Arg Trp Ala Ser Ile Ala  
 20 25 30  
 Ser Arg Leu Ser Gly Arg Thr Asp  
 35 40

<210> 2296  
 <211> 41  
 <212> PRT  
 <213> Eucalyptus grandis

<400> 2296  
 Arg Lys Gly Val Pro Trp Thr Glu Glu Glu His Arg Thr Phe Leu Met  
 1 5 10 15  
 Gly Leu Glu Lys Met Gly Lys Gly Asp Trp Arg Gly Ile Ser Arg Asn  
 20 25 30  
 Tyr Val Thr Thr Arg Thr Pro Thr Gln  
 35 40

<210> 2297  
 <211> 31  
 <212> PRT  
 <213> Eucalyptus grandis

<400> 2297  
 Arg Lys Gly Val Pro Trp Thr Glu Glu Glu His Arg Thr Phe Leu Met  
 1 5 10 15  
 Gly Leu Glu Lys Met Gly Lys Gly Asp Trp Arg Gly Ile Ser Arg  
 20 25 30

<210> 2298  
 <211> 44  
 <212> PRT  
 <213> Eucalyptus grandis

<400> 2298  
 Glu Val Arg Lys Gly Pro Trp Thr Glu Gln Glu Asp Phe Gln Leu Val  
 1 5 10 15  
 Cys Phe Val Gly Leu Phe Gly Asp Arg Arg Trp Asp Phe Ile Ala Lys  
 20 25 30  
 Val Ser Gly Leu Lys Val Ala Gly Glu Asn Asn Arg  
 35 40

<210> 2299  
 <211> 61  
 <212> PRT  
 <213> Eucalyptus grandis

<400> 2299  
 Met Gly Arg Ser Pro Cys Cys Glu Ser Glu His Met Asn Lys Gly Ala  
 1 5 10 15  
 Trp Ser Lys Glu Glu Asp Glu Arg Leu Ile Ala Tyr Ile Lys Arg His  
 20 25 30  
 Gly Glu Gly Cys Trp Arg Ser Leu Pro Lys Ala Ala Gly Leu Leu Arg  
 35 40 45  
 Cys Gly Lys Ser Cys Arg Leu Arg Trp Ile Asn Tyr Leu  
 50 55 60

<210> 2300  
 <211> 67  
 <212> PRT  
 <213> Eucalyptus grandis

<400> 2300  
 Pro Asp Leu Lys Arg Gly Asn Phe Ser Asp Glu Glu Asp Glu Leu Ile  
 1 5 10 15  
 Ile Thr Leu His Ser Leu Leu Gly Asn Lys Trp Ser Leu Ile Ala Ala  
 20 25 30  
 Arg Leu Pro Gly Arg Thr Asp Asn Glu Ile Lys Asn Tyr Trp Asn Thr  
 35 40 45  
 His Ile Lys Arg Lys Leu His Ala Arg Gly Ile Asp Pro Gln Thr His  
 50 55 60  
 Arg Pro Leu  
 65

<210> 2301  
 <211> 50  
 <212> PRT  
 <213> Eucalyptus grandis

<400> 2301  
 Lys Arg Gly Val Pro Trp Thr Glu Glu Glu His Arg Leu Phe Leu Leu  
 1 5 10 15  
 Gly Leu Gln Lys Val Gly Lys Gly Asp Trp Arg Ala Ile Ser Arg Asn  
 20 25 30  
 Phe Val Lys Thr Arg Thr Pro Thr Gln Val Ala Ser His Ala Gln Lys  
 35 40 45  
 Tyr Phe  
 50

<210> 2302  
 <211> 53  
 <212> PRT  
 <213> Eucalyptus grandis

<400> 2302  
 Lys Arg Gly Val Pro Trp Thr Glu Glu Glu His Arg Leu Phe Leu Leu  
 1 5 10 15  
 Gly Leu Gln Lys Val Gly Lys Gly Asp Trp Arg Ala Ile Ser Arg Asn  
 20 25 30  
 Phe Val Lys Thr Arg Thr Pro Thr Gln Val Ala Ser His Ala Gln Lys  
 35 40 45  
 Tyr Phe Leu Arg Arg  
 50

<210> 2303  
 <211> 64  
 <212> PRT  
 <213> Eucalyptus grandis

<400> 2303  
 Met Ala Ser Ser Ser Val Ala Ser Ala Arg Lys Asp Ala Asp Arg  
 1 5 10 15  
 Ile Lys Gly Pro Trp Ser Pro Glu Glu Asp Glu Ala Leu Gln Arg Leu  
 20 25 30  
 Val Gln Ser Tyr Gly Pro Arg Asn Trp Ser Leu Ile Ser Lys Ser Ile  
 35 40 45  
 Pro Gly Arg Ser Gly Lys Ser Cys Arg Leu Arg Trp Cys Asn Gln Leu  
 50 55 60

<210> 2304  
 <211> 98  
 <212> PRT  
 <213> Eucalyptus grandis

<400> 2304  
 Ser Pro Gln Val Glu His Arg Pro Phe Thr Pro Glu Glu Asp Glu Ala  
 1 5 10 15  
 Ile Val Arg Ala His Ala Arg Phe Gly Asn Lys Trp Ala Thr Ile Ala  
 20 25 30  
 Arg Leu Leu Asn Gly Arg Thr Asp Asn Ala Val Lys Asn His Trp Asn  
 35 40 45  
 Ser Thr Leu Lys Arg Lys Cys Ser Ser Thr Cys Ser Ala Gly Gly Asp  
 50 55 60  
 Asp Ala Asp Ala Leu Ala Glu Gln Gln Pro Leu Lys Arg Ser Ala Ser  
 65 70 75 80  
 Leu Gly Thr Pro Thr Gly Gly Asn Asn Ala Val Ser Asp Leu Phe Phe  
 85 90 95  
 Ser Pro

<210> 2305  
 <211> 50  
 <212> PRT  
 <213> Eucalyptus grandis

<400> 2305  
 Leu Arg Lys Gly Leu Trp Ser Pro Glu Glu Asp Asp Lys Leu Met Asn  
 1 5 10 15  
 Tyr Met Leu Asn Asn Gly Gln Gly Cys Trp Ser Asp Val Ala Arg Asn  
 20 25 30  
 Ala Gly Leu Gln Arg Cys Gly Lys Ser Cys Arg Leu Arg Trp Ile Asn  
 35 40 45  
 Tyr Leu  
 50

<210> 2306  
 <211> 60  
 <212> PRT  
 <213> Eucalyptus grandis

<400> 2306  
 Pro Asp Leu Lys Arg Gly Ala Phe Ser Pro Gln Glu Glu Glu Leu Ile  
 1 5 10 15  
 Ile His Leu His Ser Ile Leu Gly Asn Arg Trp Ser Gln Ile Ala Ala  
 20 25 30  
 Arg Leu Pro Gly Arg Thr Asp Asn Glu Ile Lys Asn Phe Trp Asn Ser  
 35 40 45  
 Thr Ile Lys Lys Arg Ser Arg Thr Arg His His Leu  
 50 55 60

<210> 2307  
 <211> 44  
 <212> PRT  
 <213> Eucalyptus grandis

<400> 2307



Lys Leu Asp Phe Ser Glu Asp Glu Glu Thr Leu Val Ile Arg Met Tyr  
 1 5 10 15  
 Asn Leu Val Gly Glu Arg Trp Ser Leu Ile Ala Gly Arg Ile Pro Gly  
 20 25 30  
 Arg Thr Ala Glu Glu Ile Glu Lys Tyr Trp Asn Ser  
 35 40

<210> 2308  
 <211> 61  
 <212> PRT  
 <213> Eucalyptus grandis

<400> 2308  
 Met Gly Arg Gln Pro Cys Cys Asp Lys Leu Gly Val Lys Lys Gly Pro  
 1 5 10 15  
 Trp Thr Ala Glu Glu Asp Arg Lys Leu Val Asn Phe Ile Leu Thr His  
 20 25 30  
 Gly Gln Cys Cys Trp Arg Ala Val Pro Lys Leu Ala Gly Leu Arg Arg  
 35 40 45  
 Cys Gly Lys Ser Cys Arg Leu Arg Trp Thr Asn Tyr Leu  
 50 55 60

<210> 2309  
 <211> 64  
 <212> PRT  
 <213> Eucalyptus grandis

<400> 2309  
 Pro Asp Leu Lys Arg Gly Leu Leu Asn Glu Ala Glu Glu Ser Leu Val  
 1 5 10 15  
 Ile Asp Leu His Ala Thr Leu Gly Asn Arg Trp Ser Lys Ile Ala Ala  
 20 25 30  
 Arg Leu Pro Gly Arg Thr Asp Asn Glu Ile Lys Asn His Trp Asn Thr  
 35 40 45  
 His Ile Lys Lys Lys Leu Ile Arg Met Gly Ile Asp Pro Val Thr His  
 50 55 60

<210> 2310  
 <211> 61  
 <212> PRT  
 <213> Eucalyptus grandis

<400> 2310  
 Met Gly Arg Gln Pro Cys Cys Asp Lys Ser Gly Val Lys Lys Gly Pro  
 1 5 10 15  
 Trp Thr Ala Glu Glu Asp Lys Lys Leu Ile Asn Phe Ile Leu Thr Asn  
 20 25 30  
 Gly His Cys Cys Trp Arg Ala Val Pro Lys Leu Ala Gly Leu Arg Arg  
 35 40 45  
 Cys Gly Lys Ser Cys Arg Leu Arg Trp Thr Asn Tyr Leu  
 50 55 60

<210> 2311  
 <211> 67  
 <212> PRT  
 <213> Eucalyptus grandis

<400> 2311  
 Pro Asp Leu Lys Arg Gly Leu Leu Ser Glu Ala Glu Glu Gln Leu Val  
 1 5 10 15  
 Ile Asp Leu His Ala Arg Leu Gly Asn Arg Trp Ser Lys Ile Ala Ala  
 20 25 30  
 Arg Leu Pro Gly Arg Thr Asp Asn Glu Ile Lys Asn His Trp Asn Thr  
 35 40 45  
 His Ile Lys Lys Lys Leu Leu Lys Met Gly Ile Asp Pro Val Thr His  
 50 55 60  
 Glu Pro Leu  
 65

<210> 2312  
 <211> 50  
 <212> PRT  
 <213> Pinus radiata

<400> 2312  
 Lys Lys Gly Val Pro Trp Ser Glu Glu Glu His Arg Met Phe Leu Tyr  
 1 5 10 15  
 Gly Leu Glu Lys Leu Gly Lys Gly Asp Trp Arg Gly Ile Ser Arg Asn  
 20 25 30  
 Phe Val Thr Thr Arg Thr Pro Thr Gln Val Ala Ser His Ala Gln Lys  
 35 40 45  
 Tyr Phe  
 50

<210> 2313  
 <211> 53  
 <212> PRT  
 <213> Pinus radiata

<400> 2313  
 Lys Lys Gly Val Pro Trp Ser Glu Glu Glu His Arg Met Phe Leu Tyr  
 1 5 10 15  
 Gly Leu Glu Lys Leu Gly Lys Gly Asp Trp Arg Gly Ile Ser Arg Asn  
 20 25 30  
 Phe Val Thr Thr Arg Thr Pro Thr Gln Val Ala Ser His Ala Gln Lys  
 35 40 45  
 Tyr Phe Leu Arg Gln  
 50

<210> 2314  
 <211> 60  
 <212> PRT  
 <213> Pinus radiata

<400> 2314  
 Gly Lys Ser Pro Gly His Asp Glu Pro Asp Arg Ile Lys Gly Pro Trp  
 1 5 10 15  
 Ser Pro Glu Glu Asp Ala Ala Leu Gln His Phe Val Gln Lys Tyr Gly  
 20 25 30  
 Pro Arg Asn Trp Ser Leu Ile Ser Lys Ala Ile Pro Gly Arg Ser Gly  
 35 40 45  
 Lys Ser Cys Arg Leu Arg Trp Cys Asn Gln Leu Ser  
 50 55 60

<210> 2315  
 <211> 60  
 <212> PRT  
 <213> Pinus radiata

<400> 2315  
 Pro Gln Val Glu His Arg Pro Phe Thr Pro Glu Glu Asp Ala Thr Ile  
 1 5 10 15  
 Val Arg Ala His Ala Gln His Gly Asn Lys Trp Ala Thr Ile Ala Arg  
 20 25 30  
 Met Leu Ser Gly Arg Thr Asp Asn Ala Ile Lys Asn His Trp Asn Ser  
 35 40 45  
 Thr Leu Arg Arg Arg Cys Gln Gly Gly Gly Ala Leu  
 50 55 60

<210> 2316  
 <211> 20  
 <212> PRT  
 <213> Pinus radiata

<400> 2316  
 Lys Arg Gly Val Pro Trp Thr Glu Glu Glu His Arg Met Phe Leu Val  
 1 5 10 15  
 Gly Leu Gln Arg  
 20

<210> 2317  
 <211> 18  
 <212> PRT  
 <213> Pinus radiata

<400> 2137  
 Lys Arg Gly Val Pro Trp Thr Glu Glu Glu His Arg Met Phe Leu Val  
 1 5 10 15  
 Gly Leu

<210> 2318  
 <211> 10  
 <212> PRT  
 <213> Pinus radiata

<400> 2318  
 Lys Arg Gly Val Pro Trp Thr Glu Glu Glu  
 1 5 10

<210> 2319  
 <211> 14  
 <212> PRT  
 <213> Pinus radiata

<400> 2319  
 Lys Arg Gly Val Pro Trp Thr Glu Glu Glu His Arg Met Phe  
 1 5 10

<210> 2320  
 <211> 68

<212> PRT  
 <213> Pinus radiata

<400> 2320  
 Met Arg Cys Thr Arg Trp Gln Gly Leu Pro Phe Ser Ser Lys Pro Lys  
 1 5 10 15  
 Val Lys Lys Gly Leu Trp Ser Pro Glu Glu Asp Glu Lys Leu Ile Asn  
 20 25 30  
 Tyr Met Met Lys Asn Gly Leu Leu Gly Cys Ser Trp Ser Tyr Val Ala  
 35 40 45  
 Lys Gln Ile Gly Leu Gln Arg Cys Gly Lys Ser Cys Arg Leu Arg Trp  
 50 55 60  
 Thr Asn Tyr Leu  
 65

<210> 2321  
 <211> 62  
 <212> PRT  
 <213> Pinus radiata

<400> 2321  
 Met Gly Arg Ala Pro Cys Cys Asp Lys Ala Asn Val Lys Lys Gly Pro  
 1 5 10 15  
 Trp Ser Pro Glu Glu Asp Thr Lys Leu Lys Ala Phe Ile Glu Gln His  
 20 25 30  
 Gly Thr Gly Gly Asn Trp Ile Ala Leu Pro Gln Lys Ala Gly Leu Lys  
 35 40 45  
 Arg Cys Gly Lys Ser Cys Arg Leu Arg Trp Leu Asn Tyr Leu  
 50 55 60

<210> 2322  
 <211> 60  
 <212> PRT  
 <213> Pinus radiata

<400> 2322  
 Met Gly Arg Ser Pro Cys Cys Glu Lys Ala His Thr Asn Lys Gly Ala  
 1 5 10 15  
 Trp Thr Lys Glu Glu Asp Asp Arg Leu Ile Ala His Ile Arg Thr His  
 20 25 30  
 Gly Glu Gly Cys Trp Arg Ser Leu Pro Lys Ala Ala Gly Leu Met Arg  
 35 40 45  
 Cys Gly Lys Ser Cys Arg Leu Arg Trp Ile Asn Tyr  
 50 55 60

<210> 2323  
 <211> 46  
 <212> PRT  
 <213> Pinus radiata

<400> 2323  
 Arg Pro Asp Leu Lys Arg Gly Asn Phe Ser Glu Glu Glu Asp Glu Leu  
 1 5 10 15  
 Ile Ile Lys Leu His Ser Leu Leu Gly Asn Lys Trp Ser Leu Ile Ala  
 20 25 30  
 Gly Arg Leu Pro Gly Arg Thr Asp Asn Glu Ile Lys Asn Tyr  
 35 40 45

[illegible]

Met	Gly	Arg	Ala	Pro	Cys	Cys	Glu	Lys	Val	Gly	Leu	Lys	Lys	Gly	Pro
1				5					10					15	
Trp	Thr	Pro	Glu	Glu	Asp	Gln	Lys	Leu	Leu	Ala	Tyr	Ile	Gln	Glu	His
			20				25						30		
Gly	His	Gly	Ser	Trp	Arg	Ala	Leu	Pro	Gln	Lys	Ala	Gly	Leu	Leu	Arg
		35					40					45			
Cys	Gly	Lys	Ser	Cys	Arg	Leu	Arg	Trp	Thr	Asn	Tyr	Leu			
	50					55				60					

<400> 2325															
Met	Gly	Arg	Ser	Pro	Cys	Cys	Glu	Lys	Ala	His	Thr	Asn	Lys	Gly	Ala
1				5					10					15	
Trp	Thr	Lys	Glu	Glu	Asp	Asp	Arg	Leu	Ile	Ala	His	Ile	Arg	Thr	His
			20					25					30		
Gly	Glu	Gly	Cys	Trp	Arg	Ser	Leu	Pro	Lys	Ala	Ala	Gly	Leu	Met	Arg
		35					40					45			
Cys	Gly	Lys	Ser	Cys	Arg	Leu	Arg	Trp	Ile	Asn	Tyr	Leu			
	50					55				60					

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      <400> 2326
Pro  Asp  Leu  Lys  Arg  Gly  Asn  Phe  Ser  Glu  Glu  Glu  Asp  Glu  Leu  Val
 1              5              10              15
Ile  Lys  Leu  His  Ser  Leu  Leu  Gly  Asn  Lys  Trp  Ser  Leu  Ile  Ala  Gly
      20              25              30
Arg  Leu  Pro  Gly  Arg  Thr  Asp  Asn  Glu  Ile  Lys  Asn  Tyr
      35              40              45

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      <400> 2327
Lys Lys Gly Val Pro Trp Thr Glu Glu Glu His Arg Met Phe Leu Leu
 1          5          10          15
Gly Leu Gln Lys Leu Gly Lys Gly Asp Trp Arg Gly Ile Ala Arg Asn
      20          25          30
Phe Val Ile Thr Arg Thr Pro Thr Gln Val Ala Ser His Ala Gln Lys
      35          40          45
Tyr Phe

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50

<210> 2328  
 <211> 53  
 <212> PRT  
 <213> Pinus radiata

<400> 2328  
 Lys Lys Gly Val Pro Trp Thr Glu Glu Glu His Arg Met Phe Leu Leu  
 1 5 10 15  
 Gly Leu Gln Lys Leu Gly Lys Gly Asp Trp Arg Gly Ile Ala Arg Asn  
 20 25 30  
 Phe Val Ile Thr Arg Thr Pro Thr Gln Val Ala Ser His Ala Gln Lys  
 35 40 45  
 Tyr Phe Ile Arg Gln  
 50

<210> 2329  
 <211> 48  
 <212> PRT  
 <213> Pinus radiata

<400> 2329  
 Gln Arg Glu Arg Trp Ser Glu Asp Glu His Leu Lys Phe Leu Glu Ala  
 1 5 10 15  
 Leu Lys Met Tyr Gly Arg Ala Trp Arg Arg Ile Glu Glu His Ile Gly  
 20 25 30  
 Thr Lys Thr Ala Val Gln Ile Arg Ser His Ala Gln Lys Phe Phe Ser  
 35 40 45

<210> 2330  
 <211> 42  
 <212> PRT  
 <213> Pinus radiata

<400> 2330  
 Gln Arg Glu Arg Trp Ser Glu Asp Glu His Leu Lys Phe Leu Glu Ala  
 1 5 10 15  
 Leu Lys Met Tyr Gly Arg Ala Trp Arg Arg Ile Glu Glu His Ile Gly  
 20 25 30  
 Thr Lys Thr Ala Val Gln Ile Arg Ser His  
 35 40

<210> 2331  
 <211> 61  
 <212> PRT  
 <213> Pinus radiata

<400> 2331  
 Met Gly Arg Thr Pro Cys Cys Leu Lys Val Gly Leu Asn Arg Gly Pro  
 1 5 10 15  
 Trp Thr Pro Glu Glu Asp Leu Cys Leu Ser Asn Tyr Ile Glu Ala His  
 20 25 30  
 Gly Glu Gly Gly Trp Arg Thr Leu Pro Lys Lys Ala Gly Leu Leu Arg  
 35 40 45  
 Cys Gly Lys Ser Cys Arg Leu Arg Trp Met Asn Tyr Leu  
 50 55 60

$$\begin{array}{ccccccc} \mathbb{Z} & \xrightarrow{\alpha} & \mathbb{Z} & \xrightarrow{\beta} & \mathbb{Z} & \xrightarrow{\gamma} & \mathbb{Z} \\ \downarrow & & \downarrow & & \downarrow & & \downarrow \\ \mathbb{Z} & \xrightarrow{\alpha} & \mathbb{Z} & \xrightarrow{\beta} & \mathbb{Z} & \xrightarrow{\gamma} & \mathbb{Z} \end{array}$$

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<210> 2333
<211> 55
<212> PRT
<213> Pinus radiata
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<210> 2334
<211> 56
<212> PRT
<213> Pinus radiata
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<210> 2335
<211> 34
<212> PRT
<213> Pinus radiata
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Lys Asp                    20                    25                    30

<210> 2336  
 <211> 51  
 <212> PRT  
 <213> Pinus radiata

<400> 2336  
 Leu Arg Lys Gly Leu Trp Ser Pro Asp Glu Asp Ile Glu Leu Thr Thr  
 1                    5                    10                    15  
 Tyr Ile Met Arg Lys Gly Leu Met Gly Cys Trp Asn Tyr Ile Ala Lys  
 20                    25                    30  
 Gln Ala Gly Leu Gln Arg Cys Gly Lys Ser Cys Arg Leu Arg Trp Ile  
 35                    40                    45  
 Asn Tyr Leu  
 50

<210> 2337  
 <211> 45  
 <212> PRT  
 <213> Pinus radiata

<400> 2337  
 Pro Gly Leu Lys Arg Cys Ala Ile Ser Pro Gln Glu Glu Arg Leu Ile  
 1                    5                    10                    15  
 Ile Gln Leu Gln Ser Ser Leu Gly Asn Arg Trp Ser Gln Ile Ala Ala  
 20                    25                    30  
 His Leu Pro Gly Arg Thr Asp Asn Glu Val Lys Asn Tyr  
 35                    40                    45

<210> 2338  
 <211> 62  
 <212> PRT  
 <213> Pinus radiata

<400> 2338  
 Met Gly Arg Ser Pro Cys Cys Glu Lys Ala His Thr Asn Lys Gly Ala  
 1                    5                    10                    15  
 Trp Thr Gln Gln Glu Asp Thr Arg Leu Val Ala His Ile Arg Ala His  
 20                    25                    30  
 Gly Gln Gly Gly Trp Ser Ser Leu Pro Lys Ala Ala Gly Leu Leu Arg  
 35                    40                    45  
 Cys Gly Lys Ser Cys Arg Gln Arg Trp Ile Asn Tyr Leu His  
 50                    55                    60

<210> 2339  
 <211> 39  
 <212> PRT  
 <213> Pinus radiata

<400> 2339  
 Pro Asp Leu Lys Arg Ser Asn Phe Ser Glu Glu Glu Asp Glu Leu Ile  
 1                    5                    10                    15  
 Val Arg Leu His Ser Leu Leu Gly Asn Lys Trp Ser Leu Ile Ala Gly  
 20                    25                    30



Arg Leu Pro Gly Arg Thr Asp  
35

<210> 2340

<211> 61

<212> PRT

<213> Pinus radiata

<400> 2340

Gly	Thr	His	Pro	Ala	Pro	Ser	Lys	Pro	Lys	Leu	Arg	Lys	Gly	Leu	Trp
1				5				10						15	
Ser	Pro	Val	Glu	Asp	Asn	Gln	Leu	Thr	Asn	Tyr	Ile	Leu	Arg	Arg	Gly
			20				25					30			
Leu	Val	Gly	Cys	Trp	Asn	Tyr	Val	Ala	Lys	Gln	Ala	Gly	Leu	Gln	Arg
		35				40						45			
Thr	Gly	Lys	Ser	Cys	Arg	Leu	Arg	Trp	Ile	Asn	Tyr	Leu			
50						55					60				

<210> 2341

<211> 43

<212> PRT

<213> Pinus radiata

<400> 2341

Pro	Gly	Leu	Lys	Arg	His	Pro	Ile	Ser	Arg	Gln	Glu	Glu	Gln	Leu	Ile
1				5				10						15	
Ile	Glu	Leu	Gln	Ser	Ile	Leu	Gly	Asn	Arg	Trp	Ser	Gln	Ile	Ala	Ala
			20				25						30		
Gln	Leu	Pro	Gly	Arg	Thr	Asp	Ile	Glu	Ile	Lys					
		35				40									

<210> 2342

<211> 61

<212> PRT

<213> Eucalyptus grandis

<400> 2342

Met	Gly	Arg	His	Ser	Cys	Cys	Tyr	Lys	Gln	Lys	Leu	Arg	Lys	Gly	Leu
1				5				10						15	
Trp	Ser	Pro	Glu	Glu	Asp	Glu	Lys	Leu	Leu	Arg	His	Ile	Ser	Gln	Tyr
			20				25						30		
Gly	His	Gly	Cys	Trp	Ser	Ser	Val	Pro	Lys	Gln	Ala	Gly	Leu	Gln	Arg
		35				40						45			
Cys	Gly	Lys	Ser	Cys	Arg	Leu	Arg	Trp	Ile	Asn	Tyr	Leu			
50						55					60				

<210> 2343

<211> 67

<212> PRT

<213> Eucalyptus grandis

<400> 2343

Pro	Asp	Leu	Lys	Arg	Gly	Ala	Phe	Ser	Gln	Asp	Glu	Glu	Asp	Leu	Ile
1				5				10						15	
Ile	Glu	Leu	His	Ala	Ala	Leu	Gly	Asn	Lys	Trp	Ser	Gln	Ile	Ala	Ala
			20				25						30		
Asn	Leu	Pro	Gly	Arg	Thr	Asp	Asn	Glu	Ile	Lys	Asn	Leu	Trp	Asn	Ser

35 40 45  
 Cys Leu Lys Lys Lys Leu Arg Gln Arg Gly Ile Asp Pro Val Ser His  
 50 55 60  
 Arg Pro Leu  
 65

<210> 2344  
 <211> 58  
 <212> PRT  
 <213> Eucalyptus grandis

<400> 2344  
 Thr Pro Cys Cys Ser Lys Val Gly Ile Lys Arg Gly Pro Trp Thr Pro  
 1 5 10 15  
 Glu Glu Asp Glu Val Leu Ala Ser Tyr Val Arg Arg Glu Gly Glu Gly  
 20 25 30  
 Arg Trp Arg Thr Leu Pro Lys Arg Ala Gly Leu Gln Arg Cys Gly Lys  
 35 40 45  
 Ser Cys Arg Leu Arg Trp Met Asn Tyr Leu  
 50 55

<210> 2345  
 <211> 67  
 <212> PRT  
 <213> Eucalyptus grandis

<400> 2345  
 Pro Ser Val Lys Arg Gly Gln Ile Ala Pro Asp Glu Glu Asp Leu Ile  
 1 5 10 15  
 Leu Arg Leu His Arg Leu Leu Gly Asn Arg Trp Ser Leu Ile Ala Gly  
 20 25 30  
 Arg Ile Pro Gly Arg Thr Asp Asn Glu Ile Lys Asn Tyr Trp Asn Thr  
 35 40 45  
 His Leu Ser Lys Lys Leu Ile Ser Gln Gly Ile Asp Pro Arg Thr His  
 50 55 60  
 Lys Pro Leu  
 65

<210> 2346  
 <211> 67  
 <212> PRT  
 <213> Eucalyptus grandis

<400> 2346  
 Met Asp Lys Lys Pro Asp Asp Asp Ser Gly Lys Ser Gln Asp Val Glu  
 1 5 10 15  
 Val Arg Lys Gly Pro Trp Thr Met Glu Asp Leu Ile Leu Ile Asn  
 20 25 30  
 Tyr Ile Ala Asn His Gly Glu Gly Ser Trp Asn Ser Leu Ala Lys Ala  
 35 40 45  
 Ala Gly Leu Lys Arg Thr Gly Lys Ser Cys Arg Leu Arg Trp Leu Asn  
 50 55 60  
 Tyr Leu Arg  
 65

<210> 2347  
 <211> 56

<212> PRT  
<213> Eucalyptus grandis

<400> 2347  
Pro Asp Val Arg Arg Gly Asn Ile Thr Thr Glu Glu Gln Leu Leu Ile  
1 5 10 15  
Met Glu Leu His Ala Lys Trp Gly Asn Arg Trp Ser Lys Ile Ala Lys  
20 25 30  
His Leu Pro Gly Arg Thr Asp Asn Glu Ile Lys Asn Phe Trp Arg Thr  
35 40 45  
Arg Ile Gln Lys His Ile Lys Gln  
50 55

<210> 2348  
<211> 63  
<212> PRT  
<213> Eucalyptus grandis

<400> 2348  
Met Asp Lys Lys Pro Cys Tyr Arg Thr Gln Asp Pro Gln Val Arg Lys  
1 5 10 15  
Gly Pro Trp Thr Leu Glu Glu Asp Leu Ile Leu Met Asp Tyr Ile Ala  
20 25 30  
Asn His Gly Glu Gly Val Trp Asn Ser Leu Ala Lys Ala Ala Gly Leu  
35 40 45  
Gln Arg Thr Gly Lys Ser Cys Arg Leu Arg Trp Leu Asn Tyr Leu  
50 55 60

<210> 2349  
<211> 54  
<212> PRT  
<213> Eucalyptus grandis

<400> 2349  
Pro Asp Val Arg Arg Gly Asn Ile Thr Pro Glu Glu Gln Leu Leu Ile  
1 5 10 15  
Ile His Leu Gln Ser Met Trp Gly Asn Arg Trp Ser Glu Ile Ala Lys  
20 25 30  
His Leu Pro Gly Arg Thr Asp Asn Glu Ile Lys Asn Tyr Trp Arg Thr  
35 40 45  
Lys Ile Gln Lys His Ile  
50

<210> 2350  
<211> 47  
<212> PRT  
<213> Eucalyptus grandis

<400> 2350  
Ser Arg Glu Ser Trp Thr Glu Gln Glu His Asp Lys Phe Leu Glu Ala  
1 5 10 15  
Leu His Leu Phe Asp Arg Asp Trp Lys Lys Ile Glu Ala Phe Val Gly  
20 25 30  
Ser Lys Thr Val Ile Gln Ile Arg Ser His Ala Gln Lys Tyr Phe  
35 40 45

<210> 2351

[illegible]

Ser	Trp	Thr	Glu	Gln	Glu	His	Asp	Lys	Phe	Leu	Glu	Ala	Leu	His	Leu
1				5					10					15	
Phe	Asp	Arg	Asp	Trp	Lys	Lys	Ile	Glu	Ala	Phe	Val	Gly	Ser	Lys	Thr
			20					25					30		
Val	Ile	Gln	Ile	Arg	Ser	His	Ala	Gln	Lys	Tyr	Phe	Leu	Lys	Val	Gln
		35					40					45			
Lys	Asn	Gly	Thr	Ser	Glu	His	Val	Pro	Pro	Pro					
	50					55									

			<400>	2352												
Met	Gly	Arg	Ser	Pro	Cys	Cys	Glu	Lys	Ala	His	Thr	Asn	Lys	Gly	Ala	
1				5					10					15		
Trp	Thr	Lys	Gln	Glu	Asp	Asp	Arg	Leu	Ile	Ala	His	Ile	Arg	Ala	His	
			20					25					30			
Gly	Glu	Gly	Gly	Trp	Arg	Ser	Leu	Pro	Lys	Ala	Ala	Gly				
		35					40					45				

<400> 2353															
Met	Gly	Arg	Ala	Pro	Cys	Cys	Glu	Lys	Val	Gly	Leu	Lys	Lys	Gly	Pro
1				5					10					15	
Trp	Thr	Pro	Glu	Glu	Asp	Gln	Lys	Leu	Val	Thr	Tyr	Ile	Gln	Glu	His
			20					25					30		
Gly	His	Gly	Ser	Trp	Arg	Ala	Leu	Pro	Gln	Lys	Ala	Gly			
		35					40					45			

<400> 2354															
Met	Gly	Arg	Ser	Pro	Cys	Cys	Ala	Lys	Glu	Gly	Leu	Asn	Arg	Gly	Ala
1				5					10					15	
Trp	Thr	Lys	Thr	Glu	Asp	Ile	Ile	Leu	Ser	Glu	Tyr	Ile	Arg	Ile	His
			20					25					30		
Gly	Asp	Gly	Gly	Trp	Arg	Ser	Leu	Pro	Lys	Lys	Ala	Gly	Leu	Lys	Arg
		35					40					45			
Cys	Gly	Lys	Ser	Cys	Arg	Leu	Arg	Trp	Leu	Asn	Tyr	Leu			
	50					55				60					

[illegible]

Met	Gly	Arg	Ala	Pro	Cys	Cys	Ser	Asn	Asp	Asp	Arg	Asn	Lys	Gly	Ala
1				5					10					15	
Trp	Thr	Lys	Glu	Glu	Asp	Asp	Arg	Leu	Ile	Gln	Tyr	Ile	Lys	Val	His
			20					25					30		
Gly	Glu	Gly	Cys	Trp	Arg	Ser	Leu	Pro	Lys	Ala	Ala	Gly	Leu	Leu	Arg
		35					40					45			
Cys	Gly	Lys	Ser	Cys	Arg	Leu	Arg	Trp	Ile	Asn	Tyr	Leu			
	50					55				60					

[illegible]

	<400> 2357															
Met	Gly	Arg	Ala	Pro	Cys	Cys	Ser	Asn	Gly	Asp	Arg	Asn	Lys	Gly	Ala	
1				5					10					15		
Trp	Thr	Lys	Glu	Glu	Asp	Asp	Arg	Leu	Ile	Gln	Tyr	Ile	Lys	Val	His	
			20					25					30			
Gly	Glu	Gly	Cys	Trp	Arg	Ser	Leu	Pro	Asn	Ala	Ala	Gly	Leu	Leu	Arg	
		35					40					45				
Cys	Gly	Lys	Ser	Cys	Arg	Leu	Arg	Trp	Ile	Asn	Tyr	Leu				
	50					55				60						

<400> 2358  
Pro Asp Leu Lys Arg Gly Phe Phe Ser Glu Asp Glu Asp Asp Leu Ile  
1 5 10 15  
Leu Lys Leu His Ala Leu Leu Gly Asn Lys Trp Ser Leu Ile Ala Gly  
20 25 30  
Arg Leu Pro Gly Arg Thr Asp  
35



20 25 30  
 Arg Met Pro Gly Arg Thr Asp Asn Glu Val Lys Asn Tyr Trp Asn Thr  
 35 40 45  
 His Leu Ser Lys Lys Leu Ile Ser Gln Gly Ile Asp Pro Arg Thr His  
 50 55 60  
 Lys Pro Leu  
 65

<210> 2363  
 <211> 61  
 <212> PRT  
 <213> Pinus radiata

<400> 2363  
 Met Gly Arg Ser Pro Cys Cys Glu Lys Ala His Thr Asn Lys Gly Ala  
 1 5 10 15  
 Trp Thr Lys Gln Glu Asp Asp Arg Leu Ile Ala His Ile Arg Ala His  
 20 25 30  
 Gly Glu Gly Gly Trp Arg Ser Leu Pro Lys Ala Ala Gly Leu Leu Arg  
 35 40 45  
 Cys Gly Lys Ser Cys Arg Leu Arg Trp Ile Asn Tyr Leu  
 50 55 60

<210> 2364  
 <211> 67  
 <212> PRT  
 <213> Pinus radiata

<400> 2364  
 Pro Asp Leu Lys Arg Gly Ser Phe Thr Glu Glu Glu Asp Glu Leu Ile  
 1 5 10 15  
 Ile Lys Leu His Ser Phe Val Gly Asn Lys Trp Ser Leu Ile Ala Gly  
 20 25 30  
 Arg Leu Pro Gly Arg Thr Asp Asn Glu Ile Lys Asn Tyr Trp Asn Thr  
 35 40 45  
 His Ile Lys Arg Lys Leu Leu Ser Lys Gly Leu Asp Pro Gln Thr His  
 50 55 60  
 Arg Pro Leu  
 65

<210> 2365  
 <211> 61  
 <212> PRT  
 <213> Pinus radiata

<400> 2365  
 Met Gly Arg Ser Pro Cys Cys Glu Lys Ala His Thr Asn Lys Gly Ala  
 1 5 10 15  
 Trp Thr Lys Gln Glu Asp Asp Arg Leu Ile Ala His Ile Arg Ala His  
 20 25 30  
 Gly Glu Gly Gly Trp Arg Ser Leu Pro Lys Ala Ala Gly Leu Leu Arg  
 35 40 45  
 Cys Gly Lys Ser Cys Arg Leu Arg Trp Ile Asn Tyr Leu  
 50 55 60

<210> 2366  
 <211> 67

